Choosing the Right Location and Layout

On completion of this chapter, you will be able to:

1. Explain the stages in the location decision: choosing the region, the state, the city, and the specific site.
2. Describe the location criteria for retail and service businesses.
3. Outline the location options for retail and service businesses.
4. Explain the site selection process for manufacturers.
5. Describe the criteria used to analyze the layout and design considerations of a building, including the Americans with Disabilities Act.
6. Explain the principles of effective layouts for retailers, service businesses, and manufacturers.

A decision is the action an executive must take when he has information so incomplete that the answer does not suggest itself — Admiral Radford

Facts are stubborn things, but statistics are more pliable.
—Mark Twain


**Location: A Source of Competitive Advantage**

Much like choosing a form of ownership and selecting particular sources of financing, the location decision has far-reaching and often long-lasting effects on a small company’s future. Entrepreneurs who choose their locations wisely—with their customers’ preferences and their companies’ needs in mind—can establish an important competitive advantage over rivals who choose their locations haphazardly. Because the availability of qualified workers, tax rates, quality of infrastructure, traffic patterns, and many other factors vary from one site to another, the location decision is an important one that can influence the growth rate and the ultimate success of a company.

The location selection process is like an interactive computer game in which each decision opens the way to make another decision on the way to solving the puzzle. The answer to the puzzle, of course, is the best location for a business. At each step in the decision process entrepreneurs must analyze how well the characteristics of a particular location match the unique requirements of their businesses. Because of their significant impact on a company, location decisions can be difficult; however, as with the interactive computer game, there are many clues that guide entrepreneurs to the best decision.

The location decision process resembles a pyramid. The first level of the decision is the broadest, requiring an entrepreneur to select a particular region of the country. (We will address locating a business in a foreign country in Chapter 15, “Global Aspects of Entrepreneurship.”) Then, an entrepreneur must choose the right state, then the right city, and, finally, the right site within the city. The “secret” to selecting the ideal location lies in knowing which factors are most important to a company’s success and then finding a location that satisfies as many of them as possible, particularly those that are most critical. For instance, one of the most important location factors for high-tech companies is the availability of a skilled labor force, and their choice of location reflects this. If physically locating near customers is vital to a company’s success, then an entrepreneur’s goal is to find a site that makes it most convenient for her or his target customers to do business with the company.

David Chang, owner of Coastal Cotton, a small retail chain specializing in casual cotton clothing, has seen his company grow from a single store in Hialeah, Florida, to 12 locations in outlet centers across the Southeast and in California. Because Coastal Cotton’s primary target is bargain-hunting tourists, Chang chooses locations with high concentrations of those customers, including outlet malls ranging from Fort Arrowhead, California, to Myrtle Beach, South Carolina. “You have to know your customer base and be strategic about choosing sites,” Chang explains.1

The characteristics that make for an ideal location often vary dramatically from one company to another due to the nature of their business. In the early twentieth century, companies looked for ready supplies of water, raw materials, or access to railroads; today, they are more likely to look for sites that are close to universities and offer high-speed Internet access and accessible airports. In fact, a recent study concluded that the factors that made an area most suitable for starting and growing small companies included access to dynamic universities, an ample supply of skilled workers, a nearby airport, a temperate climate, and a high quality of life.2 The key to finding a suitable location is identifying the characteristics that can give a company a competitive edge and then searching for potential sites that meet those criteria.

**Choosing the Region**

The first step in selecting the best location is to focus at the regional level. Which region of the country has the characteristics necessary for a new business to succeed? Above all, the entrepreneur must always place the customer first in his or her mind when deciding on a location. As with the foregoing example, if your primary customers are bargain-hunting tourists, then the best locations will be where such people gather. Logic demands that the facts and figures should lead entrepreneurs to the best location for the specific type of
business, not their personal preferences. Common requirements may include rapid growth in the population of a certain age group, rising disposable incomes, the existence of necessary infrastructure, a nonunion environment, and low costs. At the broadest level of the location decision, entrepreneurs usually determine which regions of the country are experiencing substantial growth. Every year many popular business publications prepare reports on the various regions of the nation—which ones are growing, which are stagnant, and which are declining. Studying shifts in population and industrial growth will give entrepreneurs an idea of where the action is—and isn’t. Questions to consider include the following: How large is the population? How fast is it growing? What is the makeup of overall population? Which segments are growing fastest? Which segments are the slowest? What is the trend in the population’s income, and is it increasing or decreasing? Are other businesses moving into the region, and if so, what kind of businesses are they? Generally, entrepreneurs want to avoid dying regions; such regions simply cannot support a broad base of potential customers. A small company’s customers are the people, businesses, and industry in an area, and if it is to be successful, it must choose a location that is convenient to its customers.

One of the first stops entrepreneurs should make when conducting a regional evaluation is the U.S. Census Bureau. Excellent sources of basic demographic and population data include the *U.S. Statistical Abstract* and the *County and City Data Book*. The *U.S. Statistical Abstract* provides entrepreneurs looking for the right location with much helpful information, ranging from basic population characteristics and projections to poverty rates and energy consumption. Every state also publishes its own statistical abstract, which provides the same type of data for its own population. The *County and City Data Book* contains useful statistics on the populations of all of the nation’s 3,141 counties and 12,175 cities with populations exceeding 2,500. In addition to the numerous publications it offers, the Census Bureau makes most of the information contained in its vast and valuable data banks available to entrepreneurs researching potential sites through its easy-to-use Web site (http://www.census.gov/). There, entrepreneurs can access for specific locations vital demographic information such as age, income, educational level, employment level, occupation, ancestry, commuting times, housing data (house value, number of rooms, mortgage or rent status, number of vehicles owned, and so on), and many other characteristics. Sorting through each report’s 95 fields, entrepreneurs can prepare customized reports on the potential sites they are considering. These Web-based resources give entrepreneurs instant access to important site-location information that only a few years ago would have taken many hours of intense research to compile.

The Census Bureau’s American FactFinder site (http://factfinder.census.gov) provides easily accessible demographic fact sheets and maps on nearly every community in the United States, including small towns. The Census Bureau’s American Community Survey provides detailed information on the demographic and economic characteristics of areas with populations of at least 250,000 and of other selected areas with populations of at least 65,000. Both the American FactFinder and the American Community Survey allow entrepreneurs to produce easy-to-read, customizable maps of the information they generate in their searches.

When Scott Fiore was looking for a location for his natural pharmacy, The Herbal Remedy, he turned first to the demographic data from the U.S. Census Bureau. Not only did his analysis provide him with a picture of the potential customers in each area, but it also pointed him to Douglas County, Colorado, the fastest-growing county in the nation for the second year in a row. The profile that emerged from the demographic data for the county was one of young, affluent, well-educated residents, a perfect fit with Fiore’s definition of his target customer. As he drove around the area, Fiore noticed that Douglas County and neighboring Arapahoe County were “very sports-oriented, athletic places,” which was also consistent with his target audience. More research led Fiore to the town of Littleton, which is conveniently located for customers in both counties but offers relatively low rental rates.3
The Population Reference Bureau (http://www.prb.org) provides a detailed breakdown of the most relevant data collected from the most recent census. The site also includes helpful articles that discuss the implications of the changing demographic and economic profile of the nation’s population, such as the impact of aging baby boomers on business and the composition of the U.S. workforce. STAT-USA (http://www.statusa.gov) is a service of the U.S. Department of Commerce that offers both financial and economic data about the United States as well as trade data for the United States and for Europe. Here entrepreneurs can locate everything from the latest consumer price index and the number of housing starts to leads for global trading partners and tips on conducting business in practically any country in the world.

Other helpful resources merit mention as well. Demographics USA is a three-volume series covering the United States, its counties, and Zip Code areas. This useful publication provides market surveys on various segments of U.S. demographics, including purchasing power, retail sales by type of merchandise, employment and payroll data, and forecasts of economic conditions down to the county level. Entrepreneurs can use Demographics USA to analyze the level of competition in a particular area, assess the sales potential of a particular location, compare consumers’ buying power across a dozen categories, and more. Lifestyle Market Analyst, an annual publication, matches population demographics with lifestyle interests. Section 1 gives demographics and lifestyle information by “Areas of Dominant Influence.” Section 2 gives demographic and geographic information according to 57 lifestyle interests. Section 3 lists areas of dominant influence and lifestyles according to 42 demographic segments. It is wise to consult the introductory material on how to use this source. Entrepreneurs can use Lifestyle Market Analyst to determine, for example, how likely members of a particular market segment are to own a dog, collect antiques, play golf, own a vacation home, fly frequently, invest in stocks or bonds, or participate in a host of other activities.

Other sources of demographic data include Sales and Marketing Management’s Survey of Buying Power, Editor and Publisher Market Guide, The American Marketplace: Demographics and Spending Patterns, Rand McNally’s Commercial Atlas and Marketing Guide, and Zip Code Atlas and Market Planner. Sales and Marketing Management’s Survey of Buying Power, published annually, provides statistics, rankings, and projections for every county and media market in the United States with demographics segmented by age, race, city, county, and state. This publication also includes current information on retail spending and forecasts for each category. The data are divided into 323 metro markets as defined by the Census Bureau and 210 media markets, which are television or broadcast markets defined by Nielsen Media Research. The Survey also includes several unique statistics. Effective buying income (EBI) is a measure of disposable income, and the buying power index (BPI), for which the Survey is best known, is a unique measure of spending power that takes population, EBI, and retail sales into account to determine a market’s ability to buy goods and services.

The Editor and Publisher Market Guide is similar to the Survey of Buying Power but provides additional information on markets. The Guide includes detailed economic and demographic information, ranging from population and income statistics to information on climate and transportation networks for more than 1,600 key cities in both the United States and Canada.

The American Marketplace: Demographics and Spending Patterns provides useful demographic information in eight areas: education, health, income, labor force, living arrangements, population, race and ethnicity, and spending and wealth. Most of the tables in the book are derived from government statistics, but The American Marketplace also includes a discussion of the data in each table as well as a forecast of future trends. Many users say the primary advantage of The American Marketplace is its ease of use.

The Commercial Atlas and Marketing Guide reports on more than 123,000 places in the United States, many of which are not available through Census reports. It includes 11 economic indicators for every major geographic market; tables showing population trends, income, buying power, trade, and manufacturing activity; and large, cross-referenced maps. Its format makes it easy to collect large amounts of valuable data on any region in the country (and specific areas within a region).
The Zip Code Atlas and Market Planner is an extremely useful location and market-planning tool. It combines a breakdown of Zip Codes across the United States with maps featuring physical features such as mountains, rivers, and major highways. The Atlas provides demographic information on population, household income, and retail sales by industry for three-digit Zip Codes. The U.S. Census Bureau also offers the Zip Code Tabulation Areas (ZCTA) Web site (http://www.census.gov/geo/ZCTA/zcta.html), which organizes the wealth of census data by Zip Code. The database of 33,178 ZCTAs across the United States allows users to create tables and plot maps of census data by Zip Code.

The task of analyzing various potential locations—gathering and synthesizing data on a wide variety of demographic and geographic variables—is one ideally suited for a computer. In fact, a growing number of entrepreneurs are relying on geographic information systems (GIS), powerful software programs that combine map drawing with database management capability, to pinpoint the ideal location for their businesses. GIS packages allow users to search through virtually any database containing a wealth of information and plot the results on a map of the country, an individual state, a specific city, or even a single city block. The visual display highlights what otherwise would be indiscernible business trends. For instance, using GIS programs, entrepreneurs can plot their existing customer base on a map with various colors representing the different population densities. Then they can zoom in on those areas with the greatest concentration of customers, mapping a detailed view of Zip Code borders or even city streets. GIS street files originate in the U.S. Census Department’s TIGER (Topographically Integrated Geographic Encoding Referencing) file, which contains map information broken down for every square foot of Metropolitan Statistical Areas (MSAs). TIGER files contain the name and location of every street in the country and detailed block statistics for the 345 largest urban areas. In essence, TIGER is a massive database of geographic features such as roads, railways, and political boundaries across the entire United States that, when linked with mapping programs and demographic databases, gives entrepreneurs incredible power to pinpoint existing and potential customers on easy-to-read digital maps.

The Small Business Administration’s Small Business Development Center (SBDC) program also offers location analysis assistance to entrepreneurs. These centers, numbering more than 1,100 nationwide, provide training, counseling, research, and other specialized assistance to entrepreneurs and existing business owners on a wide variety of subjects—all at no charge. They are an important resource, especially for those entrepreneurs who may not have access to a computer. (To locate the SBA nearest you, contact the SBA office in your state or go to the SBA’s home page at http://www.sba.gov/SBDC/).


Once an entrepreneur has identified the best region of the country, the next step is to evaluate the individual states in that region.

Choosing the State

Every state has an economic development office working to recruit new businesses. Even though the publications produced by these offices will be biased in favor of locating in that state, they still are an excellent source of information and can help entrepreneurs to assess the business climate in each state. Some of the key issues to explore include the laws, regulations, and taxes that govern businesses and any incentives or investment credits the state may offer to businesses that locate there. For instance, Witt Everett recently relocated his box-printing business, Everett Graphics, from Oakland, California, to Evanston, Wyoming, lured, in part, by lower insurance and energy costs and incentives from Wyoming. The state offered Everett $3 million to build a 75,000-square-foot plant in Evanston, and his lease payments are credited toward the purchase of the building if the company creates 20 jobs with minimum after-tax salaries of $27,000.

Other factors entrepreneurs should consider when choosing a location include proximity to markets, proximity to raw materials, wage rates, quantity and quality of the labor supply, general business climate, tax rates, Internet access, and total operating costs.
Proximity to Markets  Locating close to markets they plan to serve is extremely critical to manufacturers, especially when the cost of transformation of finished goods is high relative to their value. Locating near customers is necessary to remain competitive. Service firms often find that proximity to their clients is essential. If a business is involved in repairing equipment used in a specific industry, it should be located where that industry is concentrated. The more specialized a business, or the greater the relative cost of transporting the product to the customer, the more likely it is that proximity to the market will be of critical importance in the location decision. For instance, with its location in the center of the country and its ready access to a variety of transportation systems, St. Louis, Missouri, has become home to many companies’ distribution centers. Not only do businesses in St. Louis benefit from a well-educated workforce, but they also can ship to customers anywhere in the country quickly and efficiently.

John Jansheski launched DenTek Oral Care, a company that makes oral care supplies, in Petaluma, California. However, he soon realized that that more than 80 percent of the company’s shipments were going east of the Mississippi and that shipping products across the Rocky Mountains added three percentage points to the cost of DenTek’s products. In 2001, Jansheski decided to relocate the company to Maryville, Tennessee. Although he has had to hire nearly all new workers (very few of the company’s employees chose to make the move from California), Jansheski is confident the move has made his company more competitive. “It was the most important financial decision we’ve ever made,” he says. “We’re putting all of that money back into the company, and as a result, sales are twice what they were.”

Proximity to Needed Raw Materials  If a business requires raw materials that are difficult or expensive to transport, it may need a location near the source of those raw materials. For instance, one producer of kitty litter chose a location on a major vein of kaolin, the highly absorbent clay from which kitty litter is made. Transporting the heavy, low-value material over long distances would be impractical—and unprofitable. In other situations in which bulk or weight is not a factor, locating manufacturing in close proximity to the suppliers can facilitate quick deliveries and reduce holding costs for inventories. The value of products and materials, their cost of transportation, and their unique function all interact to determine how close a business needs to be to its sources of supply.

Wage Rates  Existing and anticipated wage rates will provide another measure for comparison among states. Wages can sometimes vary from one state or region to another, significantly affecting a company’s cost of doing business. For instance, according to the Bureau of Labor Statistics, the average hourly compensation for workers (including wages and benefits) ranges from a low of $19.73 in the South to a high of $27.83 in the Northeast. Wage rate differentials within geographic regions can be even more drastic. When reviewing wage rates, entrepreneurs must be sure to measure the wage rates for jobs that relate to their particular industries or companies. In addition to government surveys, local newspaper ads can give entrepreneurs an idea of the pay scale in an area. In addition, entrepreneurs can obtain the latest wage and salary surveys with an e-mail or a telephone call to the local chambers of commerce for cities in the region under consideration. Entrepreneurs should study not only prevailing wage rates but also trends in rates. How does the rate of increase in wage rates compare to those in other states? Another factor influencing wage rates is the level of union activity in a state. How much union-organizing activity has the state seen within the last two years? Is it increasing or decreasing? Which industries have unions targeted in the recent past?

Labor Supply Needs  For many businesses, especially technology-driven companies, one of the most important characteristics of a potential location is the composition of the local workforce. Entrepreneurs must consider two factors when analyzing the labor supply in a potential location: the number of workers available in the area and their levels of education, training, adaptability, and experience.
When Gateway Computers’ founder Ted Waite realized that attracting top managers and staying on top of the dynamic computer industry was difficult to do from the company’s North Sioux City, South Dakota, headquarters, he moved the administrative hub to a suburb of San Diego, California, a hotbed of skilled workers and high-tech activity. Since moving Gateway’s headquarters, Waite has filled nearly all of the top management posts with local talent. “It really came down to this being a great place to recruit people, with a quality of life [that is] unmatched,” says Waite. Because operating costs in South Dakota are much lower than in California and because South Dakota has no state income tax, Gateway’s production and support operations still are based in and around Sioux City.6

Of course, an entrepreneur wants to know how many qualified people are available in the area to do the work required in the business. However, unemployment and labor cost statistics can be misleading if a company needs people with specific qualifications. Some states have attempted to attract industry with the promise of cheap labor. Unfortunately, businesses locating there found exactly what the term implied—unskilled, low-wage labor that is ill suited for performing the work the companies needed.

Knowing the exact nature of the labor needed and preparing job descriptions and job specifications in advance will help a business owner to determine whether there is a good match with the available labor pool. Reviewing the major industries already operating in an area will provide clues about the characteristics of the local workforce as well. Checking with the high schools, colleges, and universities in the state to determine the number of graduates in relevant fields of study will provide an idea of the local supply of qualified workers. Again, as with wage and salary data, chambers of commerce and economic development agencies in the locations under study are almost always willing to go that extra mile to get you the information you need regarding the availability of employees of specific skills, knowledge, or training. Such planning will result in choosing a location with a steady source of quality labor.

**Business Climate**  What is the state’s overall attitude toward your kind of business? Has it passed laws that impose restrictions on the way a company can operate? Does the state impose a corporate income tax? Is there an inventory tax? Are there “blue laws” that prohibit certain business activity on Sundays? Does the state offer small business support programs or financial assistance to entrepreneurs? Are you located in a rural area of the state that may offer special loan and promotion programs? These are just some of the issues an owner must compare on a state-by-state basis to determine the most suitable location.

Some states are more “small business friendly” than others. For instance, *Entrepreneur* magazine recently named Fort Worth/Arlington, Texas, one of the best locations for small businesses, citing its positive attitude toward growing and developing small companies as major assets. Many factors make Fort Worth (once known as Cowtown because of its stockyards) a desirable location, including its diversified economic base, a strong core of more than two dozen *Fortune* 500 companies, a significant population of private investors interested in investing in promising small companies, and several state and local government support systems offering entrepreneurial assistance and advice. The renaissance of the downtown business district is creating new opportunities for small businesses, and both the Dallas-Fort Worth International Airport and the Alliance Airport (a specialized commercial air facility) provide important pieces of business infrastructure.7

**Tax Rates**  Another important factor entrepreneurs must consider when screening states for potential locations is the tax burden they impose on businesses and individuals. Income taxes may be the most obvious tax states impose on both business and individual residents, but entrepreneurs also must evaluate the impact of payroll taxes, sales taxes, property taxes, inventory taxes, and specialized taxes on the cost of their operations. Currently, seven states impose no income tax on their residents, but state governments always impose taxes of some sort on businesses and individuals. In some cases, states offer special tax rates or are willing to negotiate fees in lieu of taxes for companies that will create jobs and stimulate the local economy.
After graduating from UCLA, Bruce Cowan, a native Californian, started Acclaim Electronics, an electronic chip and computer products distribution business in Carlsbad, California. Recently, however, Cowan decided to relocate his company to Las Vegas, Nevada, where taxes and regulatory costs are far lower. In fact, Nevada imposes no corporate, franchise, capital gains, or inventory taxes. Cowan says the move to Nevada has lowered Acclaim’s annual operating costs by 40 percent.\(^8\)

**Internet Access** Speedy and reliable Internet access is an increasingly important factor in the location decision. Fast Internet access through cable, DSL, or T1 lines is essential for high-tech companies and those engaging in e-commerce. Even those companies that may not do business over the Web currently are finding it nearly certain that they will use the Web as a business tool. Companies that fall behind in high-tech communication will find themselves at a severe competitive disadvantage.

When Darryl Lyons, a third-generation rancher, began raising Angus cattle to sell from his ranch in Okmulgee, Oklahoma, he made all of his first-year sales of $140,000 to customers located within a 100-mile radius. Then Lyons began using the Web as a marketing tool, and sales climbed to $600,000. Now reaching customers across the globe, Lyons expects sales to reach more than $1.5 million. One problem Lyons faces in his remote location, however, is fast, reliable Internet service. Bad weather interrupts his telephone and Internet service about a dozen times a year, costing him an estimated $3,000 to $4,000 in lost sales each day it is out.\(^9\)

**Total Operating Costs** When scouting a state in which to locate a company, an entrepreneur must consider the total cost of operating a business. For instance, a state may offer low utility rates, but its labor costs and tax rates may be among the highest in the nation. To select the ideal location, entrepreneurs must consider the impact of a state’s total cost of operation on their business ventures. The state evaluation matrix in Table 14.1

### TABLE 14.1 State Evaluation Matrix

<table>
<thead>
<tr>
<th>Location Criterion</th>
<th>Weight</th>
<th>Score (Low = 1, High = 5)</th>
<th>State 1</th>
<th>State 2</th>
<th>State 3</th>
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<tr>
<td>Quality of labor force</td>
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<td>Wage rates</td>
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<td>Union activity</td>
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<td>Property/building costs</td>
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<td>Utility costs</td>
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<td>Transportation costs</td>
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<td>Tax burden</td>
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<td>Educational/training assistance</td>
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<td>Start-up incentives</td>
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<td>Raw material availability</td>
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<td>Quality of life</td>
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</table>

Assign to each location criterion a weight that reflects its relative importance to your company. Then score each state on a scale of 1 (low) to 5 (high). Calculate the weighted score (weight × score) for each state. Finally, add up the total weighted score for each state. The state with the highest total score is the best location for your business.

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\(^8\) Acclaim Electronics

\(^9\) Darryl Lyons
provides a handy tool designed to help entrepreneurs determine which states best suit the most important location criteria for their companies. This same matrix can be adapted to analyze individual cities as well. One recent study by consulting firm KPMG ranked 27 major cities in the United States according to the cost of operating a business in each one. Atlanta, Tampa, and Indianapolis were the three lowest-cost cities, and New York, San Jose, and Boston ranked as the three cities with the highest costs of doing business.\textsuperscript{10}

When Mina Johnson-Glenberg launched The Neuron Farm LLC, a company that develops Web-based reading instructional applications, she decided to locate in Madison, Wisconsin, rather than in her home state of California. Because she needed skilled programmers and technology experts, Johnson-Glenberg initially thought that California would be the ideal location because of the high concentration of high-tech companies located there, especially in Silicon Valley. Intrigued by the low cost of operating a business in Madison, she discovered a large university and a ready supply of software talent and technologically savvy employees there. The city’s high level of Internet usage, quality of life, and government programs designed to help entrepreneurs with grants and with assistance in building business plans made Madison all the more appealing to Johnson-Glenberg.\textsuperscript{11}

### Choosing the City

**Population Trends** Analyzing over time the lists of “best cities for business” compiled annually by many magazines reveals one consistent trend: Successful small companies in a city tend to track a city’s population growth. In other words, more potential customers mean that a small business has a better chance of success.

In 1999, when Michelle Tell and James Woodruff were working in Las Vegas hotels and casinos, they saw signs that the city was about to enter a growth spurt. They were right; more than 6,000 people a month move to Clark County, Nevada, home to Las Vegas. “We could see the growth that was going to take place, and we thought it would be a good time to start our own business,” says Woodruff. Enticed by the city’s rapid population growth, low tax rates, business-friendly environment, and reasonable cost of living, Tell and Woodruff launched Preferred Public Relations and Marketing, which has grown from a small home-based business into a 15-person company with annual revenues exceeding $1.5 million.\textsuperscript{12}

Entrepreneurs should know more about the cities in which their businesses are located and than do the people who live there. By analyzing population and other demographic data, an entrepreneur can examine a city in detail, and the location decision becomes more than just an educated guess, or, worse, a shot in the dark. Studying the characteristics of a city’s residents, including population size and density, growth trends, family size, age breakdowns, education, income levels, job categories, gender, religion, race, and nationality, gives an entrepreneur the facts she or he needs to make an informed location decision. In fact, using only basic census data, entrepreneurs can determine the value of the homes in an area, how many rooms they contain, how many bedrooms they contain, what percentage of the population own their homes, and how much residents’ monthly rental or mortgage payments are. Imagine how useful such information would be to someone about to launch a bed and bath shop!

A company’s location should match the market for its products or services, and assembling a demographic profile will tell an entrepreneur how well a particular site measures up to her or his target market’s profile. For instance, an entrepreneur planning to open a fine art shop would likely want specific information on family income, size, age, and education. Such a shop would need to be in an area where people appreciate the product and have the discretionary income to purchase it.

Trends or shifts in population components may have more meaning than total population trends. For example, if a city’s population is aging rapidly, its disposable income
may be decreasing and the city may be gradually dying. On the other hand, a city may be experiencing rapid growth in the population of high-income, young professionals. For example, because it has one of the best telecommunications infrastructures in the world and offers low cost of doing business and ready access to venture capital, Atlanta, Georgia, is attracting droves of young people, many of them entrepreneurs. As a result, the city, in which the median age of inhabitants is 31.9 years, has seen an explosion of new businesses aimed at young people with rising incomes and hearty appetites for consumption.

The amount of available data on the population of any city or town is staggering. These statistics allow a potential business owner to compare a wide variety of cities or towns and to narrow the choices to those few that warrant further investigation. An analysis of these data makes it possible to screen out undesirable locations and to narrow the list of suitable locations to a few, but it does not make the final location decision for an entrepreneur. Entrepreneurs must see the potential locations on their “short list” firsthand. Only by personal investigation will an entrepreneur be able to add the intangible factor of intuition into the decision-making process. Spending time at a potential location will tell an entrepreneur not only how many people frequent it, but also what they are like, how long they stay, and what they buy. Walking or driving around the area will give an entrepreneur clues about the people who live and work there. What are their houses like? What kinds of cars do they drive? What stage of life are they in? Do they have children? Is the area on the rise, or is it past its prime?

When Tony Hard, owner of Planet Tan, a Dallas-based chain of tanning salons, scouts a new location for one of his company’s outlets, he starts with basic demographic data, looking only at sites with at least 100,000 residents living within a three- to five-mile radius. Once he narrows the choices using the census data, Hard then visits the potential locations, where he looks at the conditions of the houses and nearby buildings, talks with the owners of existing businesses, looks for businesses that would complement his, and interviews local residents to judge their interest in patronizing his salons. If at least 30 percent of the potential customers he interviews say they would become customers, the site is a “go.”

When evaluating cities as possible business locations, entrepreneurs should consider the following factors.

**Competition** For some retailers, it makes sense to locate near competitors because similar businesses located near one another may serve to increase traffic flow to both. This location strategy works well for products for which customers are most likely to comparison shop. For instance, in many cities, auto dealers locate next to one another in a “motor mile,” trying to create a shopping magnet for customers. The convenience of being able to shop for dozens of brands of cars all within a few hundred yards of one another draws customers from a sizable trading area. Locating near competitors is a common strategy for restaurants as well.

When George Stathakis opened his sixth restaurant, Stax Omega, in Greenville, South Carolina, he chose a site at the intersection of an interstate highway and a busy road where several other popular restaurants were already operating. With years of experience in the restaurant business, Stathakis knows that a cluster of restaurants create business for one another. “I always liked the idea of locating my restaurants near competitors,” he says.

Of course, this strategy has limits. Overcrowding of businesses of the same type in an area can create an undesirable impact on the profitability of all competing firms. Consider the nature of the businesses in the area. Do they offer the same-quality merchandise or comparable services? The products or services of a business may be superior to those that competitors currently offer, giving it a competitive edge.
Studying the size of the market for a product or service and the number of existing competitors will help an entrepreneur determine whether he or she can capture a sufficiently large market share to earn a profit. Again, census reports can be a valuable source of information. *County Business Patterns* gives a breakdown of businesses in manufacturing, wholesale, retail, and service categories and estimates companies’ annual payrolls and number of employees broken down by county. *Zip Code Business Patterns* provides the same data as *County Business Patterns* except that it organizes the data by Zip Code. The *Economic Census*, which is produced for years that end in “2” and “7,” gives an overview of the businesses in an area—their sales (or other measure of output), employment, payroll, and form of organization. It covers eight industry categories—including retail, wholesale, service, manufacturing, construction, and others—and gives statistics not only at the national level, but also by state, MSA, county, places with 2,500+ inhabitants, and Zip Code. The *Economic Census* is a useful tool for helping entrepreneurs determine whether the areas they are considering as a location are already saturated with competitors.

**Clusters**

Some cities have characteristics that attract certain industries, and, as a result, companies tend to cluster there. Clusters are geographic concentrations of interconnected companies, specialized suppliers, and service providers that are present in a region. According to Harvard professor Michael Porter, clusters are important because they allow companies in them to increase their productivity and to gain a competitive edge. For instance, with its highly trained, well-educated, and technologically literate workforce, Austin, Texas, has become a Mecca for high-tech companies. Home to Dell Computers and Hewlett-Packard, Austin offers many small technology companies exactly what they need to succeed.

Once a concentration of companies takes root in a city, other businesses in those industries tend to spring up there as well.

For instance, New York City has long been the center of the advertising, fashion, finance, and publishing industries. That’s why Alisa Weberman decided to move her audio book publishing company, Listen and Live Audio, from California to a location in New Jersey, not far from busy New York City. Being in close proximity to the publishing firms in New York City gave a huge boost to her company, which has since grown to six employees and generates annual revenues of $1 million. “The company really took off when we moved here,” says Weberman, who chose the New Jersey location because of its lower operating costs and warehouse space availability.

**Compatibility with the Community**

One of the intangibles that can be determined only by a visit to an area is the degree of compatibility a business has with the surrounding community. In other words, a small company’s image must fit in with the character of a town and the needs and wants of its residents. For example, Beverly Hills’ ritzy Rodeo Drive or Palm Beach’s Worth Avenue are home to shops that match the characteristics of the area’s wealthy residents. Shops such as Cartier and Tiffany & Company and exclusive designer clothing stores abound, catering to the area’s rich and famous residents.

**Local Laws and Regulations**

Before settling on a city, an entrepreneur must consider the regulatory burden local government might impose. Government regulations affect many aspects of small business’s operation, from acquiring business licenses and building permits to erecting business signs and dumping trash. Some cities are regulatory activists, creating so many rules that they discourage business creation; others take a more laissez-faire approach, imposing few restrictions on businesses.

Zoning laws can have a major impact on an entrepreneur’s location decision. **Zoning** is a system that divides a city or county into small cells or districts to control the use of land, buildings, and sites. Its purpose is to contain similar activities in suitable locations. For instance, one section of a city may be zoned residential, whereas the primary retail district is zoned commercial and another is zoned industrial to house manufacturing operations. Before selecting a particular site within a city, entrepreneurs must explore local zoning laws to determine whether there are any ordinances that would place restrictions on
business activity or that would prohibit establishing a business altogether. Zoning regulations may make a particular location out of bounds. In some cases, an entrepreneur may appeal to the local zoning commission to rezone a site or to grant a variance (a special exception to a zoning ordinance), but this is risky and could be devastating if the board disallows the variance. As the number of home-based businesses has increased in the last several years, more entrepreneurs have found themselves at odds with zoning commissions.

**Transportation Networks** Business owners must investigate the quality of local transportation systems. Is an airport located nearby? Are flights available to the necessary cities, and are the schedules convenient? If a company needs access to a railroad spur, is one available in the city? How convenient is the area’s access to major highways? What about travel distances to major customers? How long will it take to deliver shipments to them? Are the transportation rates reasonable? Where is the nearest seaport? In some situations, double or triple handling of merchandise and inventory causes transportation costs to skyrocket. For retailers, the availability of loading and unloading zones is an important feature of a suitable location. Some downtown locations suffer from a lack of sufficient space for carriers to unload deliveries of merchandise.

**Police and Fire Protection** Does the community in which you plan to locate offer adequate police and fire protection? If these services are not adequate and crime rates are high, the cost of the company’s business insurance will reflect that.

**Cost of Utilities and Public Services** A location should be served by a governmental unit that provides water and sewer services, trash and garage collection, and other necessary utilities at a reasonable cost. The streets should be in good repair with adequate drainage. If the location is not within the jurisdiction of a municipality that provides these services, they will become a continuing cost to the business.

**Quality of Life** A final consideration when selecting a city is the quality of life it offers. For many entrepreneurs, quality of life is one of the key determinants of their choice of locale. Cities that offer comfortable weather, cultural events, colleges and universities, museums, outdoor activities, concerts, unique restaurants, and an interesting nightlife have become magnets for entrepreneurs looking to start companies. Over the last two decades,
cities such as Austin, Boston, Seattle, San Francisco, Washington, Dallas, Minneapolis, and others have become incubators for creativity and entrepreneurship as educated young people drawn by the cities’ quality of life have moved in.

Not only can a location in a city offering a high quality of life be attractive to an entrepreneur, but it can also make recruiting employees much easier.

Matthew Burkley, CEO of Zefer Corporation, an Internet consulting firm, chose to locate his company’s headquarters in an area in downtown Boston where high-tech companies are concentrated. As Zefer established offices across the country, managers chose locations where they could attract the most qualified workers—San Francisco’s South of Market, Chicago’s Bucktown, and lower Manhattan. Burkley discovered that the workers the company wants most are young people who want to live and work in neighborhoods filled with people like them and offering the shops, clubs, galleries, and restaurants they enjoy. “In today’s labor market, you have to be where your team members want to be,” says Burkley.17

Choosing the Site

The final step in the location selection process is choosing the actual site for the business. Again, facts will guide an entrepreneur to the best location decision. Every business has its own unique set of criteria for an ideal location. A manufacturer’s prime consideration may be access to raw materials, suppliers, labor, transportation, and customers. Service firms need access to customers but generally can survive in lower-rent properties. A retailer’s prime consideration is sufficient customer traffic. For example, an entrepreneur planning to launch a dry cleaning service should know that about 80 percent of the typical dry cleaner’s customers live within a one-mile radius of the outlet and should choose a location accordingly.18 The one element common to all three types of businesses is the need to locate where customers want to do business.

The site location decision draws on the most precise information available on the makeup of the area. Using the source of published statistics described earlier in this chapter, an entrepreneur can develop valuable insights regarding the characteristics of people and businesses in the immediate community.

Would you like to know how many people or families are living in your trading area, what type of jobs they have, how much money they make, their ages, the value of their homes, and their education level, as well as a variety of other useful information? Sometimes businesses pay large fees to firms and consultants for this market research information. However, this information is available free from public libraries and on the Web. Every decade, the U.S. government undertakes one of the most ambitious market research projects in the world, collecting incredibly detailed statistics on the nation’s 298 million residents and compiling it into easy-to-read reports. The Census Bureau has divided the United States into 255 Metropolitan Statistical Areas. These are then subdivided into census tracts, which contain an average of four to five thousand people. These census tracts are subdivided into block statistics and are extremely useful for entrepreneurs considering sites in urban areas.

This mother lode of market research is available to entrepreneurs through some 1,300 state data centers across the country. Two reports entrepreneurs find especially useful when choosing locations are Summary Population, which provides a broad demographic look at an area, and Housing Characteristics, which offers a detailed breakdown of areas as small as city blocks. Nationally, the average block contains about 100 people. The data are available on the Web at the Census Bureau’s Web site. Any entrepreneur with a computer can access this incredible wealth of data with just a few mouse clicks.

**Location Criteria for Retail and Service Businesses**

Few decisions are as important for retailers and service firms as the choice of a location. Because their success depends on a steady flow of customers, these businesses must locate their businesses with their target customers’ convenience and preferences in mind. The following are important considerations.
Trade Area Size Every retail and service business should determine the extent of its trading area, the region from which a business can expect to draw customers over a reasonable time span. The primary variables that influence the scope of the trading area are the type and the size of the business. If a retail store specializes in a particular product line and offers a wide selection and knowledgeable sales people, it may draw customers from a great distance. In contrast, a convenience store with a general line of merchandise may have a small trading area because it is unlikely that customers would drive across town to purchase what is available within blocks of their homes or businesses. As a rule, the larger the store, the greater its selection, and the better its service, the broader is its trading area.

The typical movie theater draws its customers from an area of five to seven miles; however, the AMC Grand, a collection of 24 screens under one roof in Dallas, Texas, draws customers from as far as 25 miles away. This free-standing “megaplex” has expanded the normal theater trading area and attracts an amazing 3 million moviegoers a year even though it is not located near a shopping mall, as most theaters are. AMC Grand’s attendance per screen averages 38 percent more than do AMC Entertainment’s traditional theaters; its revenue per customer is 10 percent higher, and its profit margins are 12.5 percent higher.\(^{11}\)

Twelve environmental factors that influence trading area size are as follows:

- Retail compatibility
- Degree of competition
- The index of retail saturation
- Reilly’s Law of Retail Gravitation
- Transportation network
- Physical, racial, or emotional barriers
- Political barriers
- Customer traffic
- Adequate parking
- Reputation
- Room for expansion
- Visibility

Retail Compatibility Shoppers tend to be drawn to clusters of related businesses. That’s one reason shopping malls and outlet shopping centers are popular destinations for
shoppers and, therefore, are attractive locations for retailers. The concentration of businesses pulls customers from a larger trading area than a single free-standing business does. Retail compatibility describes the benefits a company receives by locating near other businesses that sell complementary products and services or generate high volumes of foot traffic. Clever business owners choose their locations with an eye on the surrounding mix of businesses. For instance, grocery store operators prefer not to locate in shopping centers with movie theaters, offices, and fitness centers, all businesses whose customers occupy parking spaces for extended time periods. Drugstores, nail salons, and ice cream parlors have proved to be much better shopping center neighbors for grocers.

Restaurants have proved to be a particularly good match for many retail operations.

Michelle Goodman decided to open Talloni: A Shoe Salon in the central business district of Greer, South Carolina, when she learned that two new restaurants would be opening there. Goodman knew that the restaurants would generate customer traffic for her retail store, which is exactly what has happened. Goodman, who launched her store five months before the new restaurants opened, says that the two eateries have “definitely made a difference” in her shoe store’s customer traffic and sales.19

**Degree of Competition** The size, location, and activity of competing businesses also influence the size of a company’s trading area. If a business will be the first of its kind in a location, its trading area might be quite extensive. However, if the area already has 8 or 10 nearby stores that directly compete with a business, its trading area might be very small because the market is saturated with competitors. Market saturation is a problem for businesses in many industries, ranging from fast food restaurants to convenience stores. A study by the *Convenience Store News*, a trade publication of the convenience store industry, found that if the number of customers per convenience store in an area dropped below 3,000, the stores in that area suffered, and many were forced to close.13

**The Index of Retail Saturation** One of the best measures of the level of saturation in an area is the index of retail saturation (IRS), which takes into account both the number of customers and the intensity of competition in a trading area.14 The index of retail saturation is a measure of the potential sales per square foot of store space for a given product within a specific trading area. It is the ratio of a trading area’s sales potential for a particular product or service to its sales capacity:

$$\text{IRS} = \frac{(C \times \text{RE})}{\text{RF}}$$

where

- **C** = Number of customers in the trading area
- **RE** = Retail expenditures = Average expenditure per person (in dollars) for the product in the trading area
- **RF** = Retail facilities = Total square feet of selling space allocated to the product in the trading area

This computation is an important one for every retailer to make. Locating in an area already saturated with competitors results in dismal sales volume and often leads to failure.

To illustrate the index of retail saturation, suppose that an entrepreneur looking at two sites for a shoe store finds that he needs sales of $175 per square foot to be profitable. Site 1 has a trading area with 25,875 potential customers who spend an average of $42 on shoes annually; the only competitor in the trading area has 6,000 square feet of selling space. Site 2 has 27,750 potential customers spending an average of $43.50 on shoes annually; two competitors occupy 8,400 square feet of space. The calculations go as follows:

**Site 1**

$$\text{IRS} = \frac{(25,875 \times 42)}{6,000}$$

$$= \$181.12 \text{ sales potential per square foot}$$
Site 2

\[ IRS = \frac{(27,750 \times 43.50)}{8,400} \]
\[ = \$143.71 \text{ sales potential per square foot} \]

Although site 2 appears to be more favorable on the surface, the index shows that site 1 is preferable; site 2 fails to meet the minimum standard of $175 per square foot.

**Reilly’s Law of Retail Gravitation** Reilly’s Law of Retail Gravitation, a classic work in market analysis published in 1931 by William J. Reilly, uses the analogy of gravity to estimate the attractiveness of a particular business to potential customers. A business’ ability to draw customers is directly related to the extent to which customers see it as a “destination” and is inversely related to the distance customers must travel to reach it. Reilly’s model also provides a way to estimate the trade boundary between two market areas by calculating the “break point” between them. The break point between two primary market areas is the boundary between the two where customers become indifferent about shopping at one or the other location. The key factor in determining this point of indifference is the size of the communities. If two nearby cities have the same population sizes, then the break point lies halfway between them. The following is the equation for Reilly’s Law:

\[ BP = \frac{d}{1 + \frac{P_b}{\sqrt{P_a}}} \]

where \( BP \) = Distance in miles from location A to the break point
\( d \) = Distance in miles between locations A and B
\( P_a \) = Population surrounding location A
\( P_b \) = Population surrounding location B

For example, if city A and city B are 22 miles apart, and city A has a population of 22,500 and city B has a population of 42,900, the break point according to Reilly’s law is

\[ BP = \frac{22}{1 + \sqrt{\frac{42,900}{22,500}}} = 9.2 \text{ miles} \]

The outer edge of city A’s trading area lies about 9 miles between city A and city B. Although only a rough estimate, this simple calculation using readily available data can be useful for screening potential locations.

**Transportation Network** The transportation networks are the highways, roads, and public service routes that presently exist or are planned. If customers find it inconvenient to get to a location, the store’s trading area is reduced. Entrepreneurs should check to see whether the transportation system works smoothly and is free of barriers that might prevent customers from reaching their stores. Is it easy for customers traveling in the opposite direction to cross traffic? Do signs and traffic lights allow traffic to flow smoothly? When traffic flow is absolutely critical to the success of a business venture, make an extra effort to contact city government officials who are knowledgeable about transportation plans. Ask about future road construction projects that may be planned or under serious consideration. Such road construction could be either beneficial or disastrous.

**Physical, Racial, or Emotional Barriers** Trading area shape and size also are influenced by physical, racial, or emotional barriers that may exist. Physical barriers may be parks, rivers, lakes, or any other natural or people-made obstruction that hinders customer’s access to the area. Locating on one side of a large park may reduce the number of customers that will drive around it to get to the store. If high-crime areas exist in any direction from the site, most of a company’s potential customers will not travel through those neighborhoods to reach the business.

In urban areas, new immigrants tend to cluster together, sharing a common culture and language. Some areas are defined by cultural barriers, where inhabitants are extremely
loyal to the businesses in their neighborhoods. The “Little Havana” section of Miami and the “Chinatown” sections of San Francisco, New York, and Los Angeles are examples.

One of the most powerful emotional barriers affecting a location is fear. Businesses in areas where crime is a problem suffer because customers are not willing to travel into them. In South Central Los Angeles, an area once decimated by riots, only a handful of businesses have reopened to serve the local population. Business owners, afraid that the area’s burned-out buildings and reputation for crime will dissuade customers from patronizing their businesses, have chosen locations in other parts of the city.

**Political Barriers** Political barriers are creations of law. County, city, or state boundaries—and the laws within those boundaries—are examples. State tax laws sometimes create conditions in which customers cross over to the next state to save money. For instance, North Carolina imposes a very low cigarette tax, and shops located near the state line do a brisk business in the product selling to customers from bordering states.

Other factors retailers should consider when evaluating potential sites include customer traffic, adequate parking, reputation, room for expansion, and visibility.

**Customer Traffic** Perhaps the most important screening criterion for a potential retail (and often for a service) location is the number of potential customers passing by the site during business hours. To be successful, a business must be able to generate sufficient sales to surpass its break-even point, and that requires an ample volume of customer traffic going past its doors. The key success factor for a convenience store is a high-volume location with easy accessibility. Entrepreneurs should know the traffic counts (pedestrian and/or auto) and traffic patterns at the sites they are considering as potential locations.

Wanting to maximize customer traffic, Wendy Woods and Piper Lunsford decided to locate their restaurant, Piper’s in the Park, in North Carolina’s Research Triangle Park, one of the world’s premier research parks and home to more than 48,000 employees. The restaurant, with annual revenues of more than $1 million, does a brisk business catering and serving meals to the employees who work in the nearby high-tech businesses.21

**Adequate Parking** If customers cannot find convenient and safe parking, they are not likely to stop in the area. Many downtown areas have lost customers because of inadequate parking. Although shopping malls average 5 parking spaces per 1,000 square feet of shopping space, many central business districts get by with 3.5 spaces per 1,000 square feet. Customers generally will not pay to park if parking is free at shopping centers or in front of competitive stores. Even when free parking is provided, some potential customers may not feel safe on the streets, especially after dark. Many large city downtown business districts become virtual ghost towns at the end of the business day. A location where traffic vanishes after 6 p.m. may not be as valuable as mall and shopping center locations that mark the beginning of the prime sales time at 6 p.m.

**Reputation** Like people, a site can have a bad reputation. In some cases, the reputation of the previous business will lower the value of the location. Sites where businesses have failed repeatedly create negative impressions in customers’ minds; many people view the business as just another that soon will be gone. Sometimes previous failures are indicative of a fundamental problem with the location itself, but in other cases, the cause of the previous failure was not the choice of a poor location but a poorly managed business. When entrepreneurs decide to conduct business in a location that has housed pervious failures, it is essential that they make many highly visible changes to the site so that customers perceive the company as a “fresh start.”

The site in Portland, Oregon, that Allen Tackett had selected as the location for his coffee house had seen three businesses fail (including one coffee shop) within the last seven years. Tackett purchased the building and completely renovated it, giving his business, Underdog Coffee, a whole new look. A new, more visible backlit sign and a highly publicized grand opening drew customers to Underdog Coffee. Since launching the business in
the original location, Tackett has opened a second location in Lebanon, Oregon, and is now accepting applications to franchise Underdog Coffee.

**Room for Expansion** A location should be flexible enough to provide for expansion if success warrants it. Failure to consider this factor can result in a successful business being forced to open a second store when it would have been better to expand in its original location.

Planning for expansion is always a difficult issue with very real cost considerations. If the business is a success and expansion is warranted, does this location allow the facility to expand? Is the location under consideration able to be expanded or is it bounded by other businesses? Beginning with “extra” space for future expansion is very expensive. The business is incurring cost that may place an undue burden on profits. The issue of expansion always includes a dilemma. On one hand, having the needed space when growth occurs may mean that the business can stay at the same location. This allows the entrepreneur to avoid the cost and customer confusion created by moving the business to a new location. On the other hand, there are the up-front costs of having a location that is intentionally larger than is needed.

**Visibility** No matter what a small business sells and how well it serves customers’ needs, it cannot survive without visibility. Highly visible locations simply make it easy for customers to make purchases. A site lacking visibility puts a company at a major disadvantage before it ever opens its doors for business.

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**Location Decisions**

Every year, a host of business magazines, including *Entrepreneur*, *Fast Company*, *Forbes, Inc.*, and others, publish their lists of the best cities for starting a business. Each magazine establishes its own criteria, including population growth, regulatory burden, tax rates, rate of business formation, cost of living index, and others. Although the lists differ somewhat, many of the same cities appear on several lists. Use the Web (or locate a copy of the relevant issue of one of these magazines) to identify the most recent “best cities” listed. Use the lists and the sources of demographic data described in this chapter to help the following entrepreneurs determine which cities would be best for them as they face the location decision.

**Vino con Vida.** Sandra Gonzalez, 36, grew up in a family that made a living picking fruit throughout California. During the 10 years that she worked for the Wine Institute, a trade association in California, she noticed that few wine makers were targeting Latino customers. Spotting an opportunity, she began planning to launch Vino con Vida (“Wine with Life”), a wine-education company that focuses on Latino customers and culture. She plans to partner with vintners and chefs to sponsor wine and food tastings, dinners, and winery tours that target Latino customers. Vino con Vida will educate Latino customers about wine and will educate the wine industry about Latinos and their unique culture and heritage.

**Teriyaki Madness.** Eric Garma, Rod Arreola, and Alan Arreola launched a teriyaki restaurant in their hometown of Seattle, Washington. Teriyaki Madness became profitable, but when it came time to expand, their research showed that the market in Seattle already was saturated with teriyaki restaurants. The entrepreneurs began to look at other cities to locate the next Teriyaki Madness. They see their restaurant as a fresh alternative to traditional fast food establishments. They
are looking for a city that offers a fast-growing population and a supply of quality employees. In addition, they believe that it is important for the city to have a diverse population and a culture that embraces new concepts.

Motricity. Ryan Wuerc's Nashville-based software company, Motricity, recently acquired another, smaller software company in Raleigh, North Carolina. Shortly after the acquisition, Wuerc began making plans to move the headquarters of the newly acquired company to Nashville. Then his wife reminded him of the difficulty he experienced in finding top-notch high-tech employees in the Nashville area. After careful consideration, he decided that Nashville might not be the best location for Motricity after all. In addition to a supply of high-tech workers, Wuerc is looking for a city that fosters creativity and a high quality of life, factors he knows draw the employees he seeks to a city.

Pulse Fitness Center. Rita Hunter lives in upstate South Carolina and wants to open a full-service fitness center, preferably somewhere within the state's borders. In addition to targeting individuals who want a wide range of exercise options, Hunter also plans to target businesses that want to offer physical fitness programs for their employees. She knows that a few large companies such as Gold's Gym dominate many markets and that other companies such as Curves target market niches (for example, busy women who want a quick, effective workout). She is looking for a location that offers a fast-growing population, a sizable population of young and middle-aged people, and a superior quality of life.

1. Use the “best cities” lists from some of the magazines mentioned previously and the sources of demographic data described in this chapter to help these entrepreneurs determine which cities would be best for them as they face the location decision.

2. What suggestions would you offer these entrepreneurs before they make the final location decisions for their companies?


Location Options for Retail and Service Businesses

There are six basic areas where retail and service business owners can locate: the central business district (CBD); neighborhoods; shopping centers and malls; near competitors; outlying areas; and at home. According to the International Council of Shopping Centers, the average cost to lease space in a shopping center is about $15 per square foot. At a regional mall, rental rates run from $20 to $40 per square foot. In central business locations, the average cost is $43 per square foot (although rental rates can vary significantly in either direction of that average, depending on the city). Of course, cost is just one factor a business owner must consider when choosing a location.

Central Business District

The central business district is the traditional center of town—the downtown concentration of businesses established early in the development of most towns and cities. Entrepreneurs derive several advantages from a downtown location. Because the business is centrally located, it attracts customers from the entire trading area of the city. In addition, a small business usually benefits from the customer traffic generated by the other stores in the district. However, locating in a CBD does have certain disadvantages. Many CBDS are characterized by intense competition, high rental rates, traffic congestion, and inadequate parking facilities.

Beginning in the 1950s, many cities saw their older downtown business districts begin to decay as residents moved to the suburbs and began shopping at newer, more convenient malls. Today, however, many of these CBDs are experiencing rebirth as cities restore them to their former splendor and shoppers return. Many customers find irresistible the charming atmosphere that traditional downtown districts offer with their
rich mix of stores, their unique architecture and streetscapes, and their historic character. Cities have begun to reverse the urban decay of their downtown business districts through proactive revitalization programs designed to attract visitors and residents alike to cultural events by locating major theaters and museums in the downtown area. In addition, many cities are providing economic incentives to real estate developers to build apartment complexes and condominium complexes in the heart of the downtown area. Vitality is returning as residents live and shop in the once nearly abandoned downtown areas. The “ghost-town” image is being replaced by both younger and older residents who love the convenience and excitement of life at the center of the city. One real estate developer experienced in Main Street locations says that his research shows that the best downtown streets for retailers are located in densely populated, affluent areas, are one-way, offer on-street parking, and are shaded by mature trees.  

Nello Gioia, owner of Ristorante Bergamo, an upscale Italian restaurant, took a chance on a downtown location on Main Street in Greenville, South Carolina, in 1985 when the city was just beginning an ambitious reclamation of its central business district. Unlike the busy, vibrant, highly desirable location Greenville’s downtown is today, what Gioia saw then was a downtown area splattered with offices, a few long-time resident businesses, and lots of shuttered and vacant stores. “The month before we opened, I got cold feet,” recalls Gioia. “But I was up to my neck. I had to do it.” Gioia had considered locating in a regional mall and a strip mall but decided that those locations were inconsistent with the image he wanted to create for his restaurant. “The one place that resembled where I came from [Bergamo, Italy] was downtown,” says Gioia. Twenty years later, he is glad he took the chance on a downtown location; Greenville’s central business district has become a well-known success story, and many other cities across the United States have used it as a model for reclaiming their downtowns. 

Neighborhood Locations
Small businesses that locate near residential areas rely heavily on the local trading areas for business. Businesses that provide convenience as a major attraction for customers find that locating on a street or road just outside major residential areas provides the needed traffic counts essential for success. Gas stations and convenience stores seem to thrive in these high-traffic areas. One study of food stores found that the majority of the typical grocer’s customers live within a five-mile radius. The primary advantages of a neighborhood location include relatively low operating costs and rents and close contact with customers.

Shopping Centers and Malls
Until the early twentieth century, central business districts were the primary shopping venues in the United States. As cars and transportation networks became more popular in the 1920s, shopping centers began popping up outside cities’ central business districts. In October 1956, the nation’s first shopping mall, Southdale, opened in the Minneapolis, Minnesota, suburb of Edina. Designed by Victor Gruen, the fully enclosed mall featured 72 shops anchored by two competing department stores (a radical concept at the time), a garden courtyard with a goldfish pond, an aviary, hanging plants, and artificial trees. With its multilevel layout and parking garage, Southdale was a huge success and forever changed the way Americans would shop.  

Today shopping centers and malls have become a mainstay of the American landscape. Since 1970, the number of shopping malls and centers in the United States has climbed from 11,000 to more than 47,700, and they occupy 6.5 billion square feet of retail space. Because many different types of stores operate under one roof, shopping malls give meaning to the term “one-stop shopping.” In a typical month, more than 200 million adults visit malls or shopping centers, which generate $2 trillion in annual sales. There are eight types of shopping centers (see Table 14.2):

- **Neighborhood shopping centers.** The typical neighborhood shopping center is relatively small, containing from 3 to 12 stores and serving a population of up to
Opened in 1956, Southdale was the first shopping mall in the United States. Its success changed the landscape of retail shopping and ushered in the era of one-stop shopping.

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<td>Outlet center</td>
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</table>

\(^a\)The share of a center’s total square footage that is attributable to its anchors.

\(^b\)The area from which 60–80% of the center’s sales originate.

40,000 people who live within a 10-minute drive. The anchor store in these centers is usually a supermarket or a drugstore. Neighborhood shopping centers typically are straight-line strip malls with parking available in front and primarily serve the daily shopping needs of customers in the surrounding area.

- **Community shopping centers.** A community shopping center contains from 12 to 50 stores and serves a population ranging from 40,000 to 150,000 people. The leading tenant often is a large department or variety store, a super drugstore, or a supermarket. Community shopping centers sell more clothing and other soft goods than do neighborhood shopping centers. Of the eight types of shopping centers, community shopping centers take on the greatest variety of shapes, designs, and tenants.

- **Power centers.** A power center combines the drawing strength of a large regional mall with the convenience of a neighborhood shopping center. Anchored by several large specialty retailers such as warehouse clubs, discount department stores, or large specialty stores, these centers target older, wealthier baby boomers, who want selection and convenience. Anchor stores usually account for 80 percent of power center space, compared with 50 percent in the typical strip shopping center. Just as in a shopping mall, small businesses can benefit from the traffic generated by anchor stores, but they must choose their locations carefully so that they are not overshadowed by their larger neighbors.

- **Theme or festival centers.** Festival shopping centers employ a unifying theme that individual stores display in their décor and sometimes in the merchandise they sell. Entertainment is a common theme for these shopping centers, which often target tourists. Many festival shopping centers are located in urban areas and are housed in older, sometimes historic, buildings that have been renovated to serve as shopping centers.

- **Outlet centers.** As their name suggests, outlet centers feature manufacturers’ and retailers’ outlet stores selling name-brand goods at a discount. Unlike most other types of shopping centers, outlet centers typically have no anchor stores; the discounted merchandise they offer draws sufficient traffic. Most outlet centers are open-air and are laid out in strips or in clusters, creating small “villages” of shops.

- **Lifestyle centers.** Typically located near affluent residential neighborhoods where their target customers live, lifestyle centers are designed to look less like shopping centers and malls and more like the busy streets in the central business districts that existed in towns and cities in their heyday. Occupied by many upscale national chain specialty stores such as Talbots, Coach,Sharper Image, and many others, these centers combine shopping convenience, and entertainment ranging from movie theaters and open-air concerts to art galleries and people-watching. “Lifestyle centers create a shopping-leisure destination that’s an extension of customers’ personal lifestyles,” says one industry expert. The typical lifestyle center generates between $400 and $500 in sales per square foot compared to $330 in sales per square foot in traditional malls. Lifestyle centers are among the most popular types of shopping centers being built today; the first lifestyle center, The Shops at Saddle Creek, opened in Germantown, Tennessee, in 1987. Today 130 lifestyle centers operate across the United States.  

- **Regional shopping malls.** The regional shopping mall serves a large trading area, usually from 5 to 15 miles or more in all directions. These enclosed malls contain from 50 to 100 stores and serve a population of 150,000 or more living within a 20- to 40-minute drive. The anchor is typically one or more major department stores, with smaller specialty stores occupying the spaces between the anchors. Clothing is one of the popular items sold in regional shopping malls.

- **Superregional shopping malls.** A superregional mall is similar to a regional mall but is bigger, containing more anchor stores and a greater variety of shops selling deeper lines of merchandise. Its trade area stretches up to 25 or more miles out. Canada’s West Edmonton Mall, the largest mall in North America, with more than 800 stores and 100 restaurants, is one of the most famous superregional malls in the world. In addition to its abundance of retail shops, the mall contains an ice skating rink, a water-park, an amusement park, miniature golf courses, and a 21-screen movie complex.
Originally built on the foundation of major department stores, which serve as anchors and attract a significant volume of customer traffic, malls and shopping centers now are welcoming small businesses with their unique, sometimes quirky, product offerings, boutique atmospheres, and marketing approaches.

Meital Grantz, owner of Talulah G, a small retail clothing store that sells clothing lines from many of today’s hottest designers, opened her first outlet in downtown Las Vegas, Nevada, in November 2001. A year later, Grantz moved the business to the Las Vegas Fashion Mall to benefit from the high customer traffic the mall generated. After moving into the mall, Grantz says daily sales climbed to $6,000 from $1,000. “Once we opened in the mall,” she says, “the store took on a life of its own.” Since then, she says, “we’ve been courted by malls all over America.”

When evaluating a mall or shopping center location, an entrepreneur should consider the following questions:

- Is there a good fit with other products and brands sold in the mall or center?
- Who are the other tenants? Which stores are the anchors that will bring people into the mall or center?
- Demographically, is the center a good fit for your products or services? What are its customer demographics? (See Figure 14.1.)
- How much foot traffic does the mall or center generate? How much traffic passes the specific site you are considering?
- How much vehicle traffic does the mall or center generate? Check its proximity to major population centers, the volume of tourists it draws, and the volume of drive-by freeway traffic. A mall or center that scores well on all three is more likely to be a winner.
- What is the mall’s vacancy rate? What is the turnover rate of its tenants?
- How much is the rent and how is it calculated? Most mall tenants pay a base amount of rent plus a percentage of their sales.
- Is the mall or center successful? How many dollars in sales does it generate per square foot? Compare its record against industry averages. The New York-based International Council of Shopping Centers (http://www.icsc.org/) is a good source of industry information.

**FIGURE 14.1**

Shopping Mall Patterns

*Source: International Council of Shopping Centers*
A mall location is no longer a guarantee of success, however. Malls have been under pressure lately, and many weaker ones (known as “greyfields”) have closed or have been redeveloped. The basic problem is an oversupply of mall space; there is 20 feet of mall retail space for every person in the United States! Another problem is that many malls are showing their age; 85 percent of the malls in the United States are more than 20 years old. In addition, the demographic makeup of an area’s shoppers often changes over time, creating a new socioeconomic customer base that may or may not be compatible with a small company’s target customer profile. As a result, many malls have undergone extensive renovations to emphasize “entertailing,” adding entertainment features to their existing retail space in an attempt to generate more traffic. For instance, in addition to its 520 retail shops and 60 restaurants, Minneapolis’s Mall of America, the second largest mall in the United States (located only a few miles from Southdale, the nation’s first mall), includes a seven-acre Camp Snoopy amusement park at its center, a 1.2 million-gallon aquarium, and a 14-screen movie complex.

Near Competitors One of the most important factors in choosing a retail or service location is the compatibility of nearby stores with the retail or service customer. For example, stores selling high-priced goods find it advantageous to locate near competitors to facilitate comparison shopping. Locating near competitors might be a key factor for success in those businesses selling goods that customers shop for and compare on the basis of price, quality, color, and other factors.

Although some business owners avoid locations near direct competitors, others see locating near rivals as an advantage. For instance, restaurateurs know that successful restaurants attract other restaurants, which, in turn, attract more customers. Many cities have at least one “restaurant row,” where restaurants cluster together; each restaurant is a source of customers to the others.

Locating near competitors has its limits, however. Clustering too many businesses of a single type into a small area ultimately will erode their sales once the market reaches the saturation point. When an area becomes saturated with competitors, the shops cannibalize sales from one another, making it difficult for any of them to be successful.

Outlying Areas Generally, it is not advisable for a small business to locate in a remote area because accessibility and traffic flow are vital to retail and service success, but there are exceptions. Some small firms have turned their remote locations into trademarks.
One small gun shop was able to use its extremely remote location to its advantage by incorporating this into its advertising to distinguish itself from its competitors. This location strategy is usually only effective if there are few comparable competitors. There must be a compelling reason for a potential customer to travel to an outlying area to shop.

An entrepreneur should consider the cost of a location (its rental or lease expense) in light of its visibility to potential customers. If a less expensive location is difficult to find and has a low traffic count, an entrepreneur will have to spend a disproportionate amount of money to advertise and promote the business as well as tell customers how to find it. Consequently, a superior and highly visible location may have a total lower cost if less advertising is needed. Many customers do not want to go exploring to find a business and, consequently, never bother to try.

**Home-Based Businesses** For more than 24 million people, home is where the business is, and their numbers are swelling. According to the Department of Commerce, home-based businesses represent the fastest-growing segment of the U.S. economy. One recent study found that 52 percent of all small companies are home-based. Although a home-based retail business usually is not ideal, locating a service business at home is quite popular. Many service companies do not have customers come to their places of business, so an expensive office location is unnecessary. For instance, customers typically contact plumbers or exterminators by telephone, and the work is performed in customers’ homes.

Entrepreneurs locating their businesses at home reap several benefits. Perhaps the biggest benefit is the low cost of setting up the business. Most often, home-based entrepreneurs set up shop in a spare bedroom or basement, avoiding the cost of renting, leasing, or buying a building. With a few basic pieces of office equipment—computer, printer, fax machine, copier, telephone answering system, and scanner—a lone entrepreneur can perform just like a major corporation.

After having difficulty locating reliable contractors for a home renovation project, Debra Cohen realized that other people faced the same problem and launched Home Remedies, a home-based contractor-referral business. The company screens home contractors specializing in various types of renovations and repairs and then refers them to homeowners. A stay-at-home mom living in Hewlett, New York, Cohen started Home Remedies with a $5,000 loan, a PC, and a refurbished fax machine. Business was so good that she repaid the business loan in just three months. Cohen works an average of 30 hours a week, and sales, which now exceed $100,000 a year, are growing rapidly.

Choosing a home location has certain disadvantages, however. Interruptions are more frequent, the refrigerator is all too handy, work is always just a few steps away, and isolation can be a problem. Another difficulty facing some home-based entrepreneurs involves zoning laws. As their businesses grow and become more successful, entrepreneurs’ neighbors often begin to complain about the increased traffic, noise, and disruptions from deliveries, employees, and customers who drive through their residential neighborhoods to conduct business. Many communities now face the challenge of passing updated zoning laws that reflect the reality of today’s home-based businesses while protecting the interests of residential homeowners.

**The Location Decision for Manufacturers**

The criteria for the location decision for manufacturers are very different from those of retailers and service businesses; however, the decision can have just as much impact on the company’s success. In some cases, a manufacturer has special needs that influence the choice of a location. For instance, when one manufacturer of photographic plates and film was searching for a location for a new plant, it had to limit its search to those sites with a large supply of available fresh water, a necessary part of its process. In other
cases, the location decision is controlled by zoning ordinances. If a manufacturer’s process creates offensive odors or excessive noise, it may be even further restricted in its choices.

Zoning maps show potential manufacturers the areas of the city or county set aside for industrial development. Most cities have developed industrial parks in cooperation with private industry. These industrial parks typically are equipped with sewage and electrical power sufficient for manufacturing. Many locations are not so equipped, and it can be extremely expensive for a small manufacturer to have such utilities brought to an existing site.

The type of transportation facilities required dictates the location of a plant in some cases. Some manufacturers may need to locate on a railroad siding, whereas others may only need reliable trucking service. If raw materials are purchased by the carload for economies of scale, the location must be convenient to a railroad siding. Bulk materials are sometimes shipped by barge and consequently require a facility convenient to a navigable river or lake. The added cost of using multiple shipping (e.g., rail-to-truck or barge-to-truck) can significantly increase shipping costs and make a location unfeasible for a manufacturer.

As fuel costs escalate, the cost of shipping finished products to customers also influences the location decision for many manufacturers. Dell Inc., the Round Rock, Texas–based maker of personal computers, recently built an assembly plant in Winston-Salem, North Carolina, citing the need to reduce shipping costs and to increase the speed of delivery to customers on the East Coast of the United States. As downward pressure on the prices of Dell’s PCs continues due to intense competition in the industry, shipping costs were soaking up a larger percentage of its total revenue, prompting Dell to build the new plant.

In some cases the perishability of the product dictates location. Vegetables and fruits must be canned in close proximity to the fields in which they are harvested. Fish must be processed and canned at the water’s edge. The ideal location is determined by quick and easy access to the perishable products.

**Foreign Trade Zones** Foreign trade zones can be an attractive location for small manufacturers that engage in global trade and are looking to reduce or eliminate the tariffs, duties, and excise taxes they pay on the materials and parts they import and the goods they export. A **foreign trade zone** (see Figure 14.2) is a specially designated area in or near a United States customs port of entry that allows resident companies to import materials and components from foreign countries; assemble, process, manufacture, or package them; and then ship the finished product back out while either reducing or eliminating tariffs and duties. As far as tariffs and duties are concerned, a company located in a foreign trade zone is treated as if it is located outside the United States. For instance, a maker of speakers might import components from around the world and assemble them at its plant located in a foreign trade zone. The company would pay no duties on the components it imports or on the speakers it exports to other foreign trade zone areas.

![Small Company diagram](image)

**FIGURE 14.2** How a Foreign Trade Zone (FTZ) Works
markets. The only duties the manufacturer would pay are on the speakers it sells in the United States.

**Empowerment Zones** Originally created to encourage companies to locate in economically blighted areas, **empowerment zones** offer businesses tax breaks on the investments they make within zone boundaries. Companies can get federal tax credits, grants, and loans for hiring workers living in empowerment zones and for investments they make in plant and equipment in the zones. Empowerment zones operate in both urban and rural areas, ranging from Los Angeles, California, to Sumter, South Carolina. Boston has a technology-oriented business incubator located within a federal empowerment zone called TechSpace, which provides high-potential start-up businesses with a full-service facility featuring completely integrated information technology and business services.

**Business Incubators** For many start-up companies, a business incubator may make the ideal initial location. A **business incubator** is an organization that combines low-cost, flexible rental space with a multitude of support services for its small business residents. The overwhelming reason for establishing an incubator is to enhance economic development by attracting new business ventures to an area, as well as to diversify the local economy. An incubator’s goal is to nurture young companies during the volatile start-up period and to help them to survive until they are strong enough to go out on their own. Common sponsors of incubators include colleges or universities (25 percent), government entities (16 percent), economic development organizations (15 percent), and private investment groups (10 percent). Most incubators are “mixed-use,” hosting a variety of start-up companies, followed by incubators that focus on technology companies.³⁵

The shared resources that incubators typically provide their tenants include secretarial services, a telephone system, computers and software, fax machines, meeting facilities, and, sometimes, management consulting services and financing. Not only do these services save young companies money, but they also save them valuable time. Entrepreneurs can focus on getting their products and services to market faster than competitors rather than searching for the resources they need to build their companies. The typical incubator has entry requirements that prospective residents must meet. Incubators also have criteria that establish the conditions a business must maintain to remain in the facility as well as the expectations for “graduation” into the business community.

More than 1,000 incubators operate across the United States, up from just 12 in 1980. Perhaps the greatest advantage of choosing to locate a start-up company in an incubator is a greater chance for success; according to the National Business Incubation Association, graduates from incubators have a success rate of 87 percent. The average incubator houses 20 ongoing businesses employing 55 people.³⁶

Grady Busse, who co-founded Action Publishing, a company that produces academic day planners, calendars, and accessories, already knew the benefits that business incubators offered start-up companies because he had founded a successful small business in The Business Incubator Center in Grand Junction, Colorado, a decade before. Busse and his partners are convinced that if it had not been for the support, training, and resources of the incubator—from business training classes to office furniture and equipment—Action Publishing might not have survived. For instance, when the company’s application for a loan from the state Community Development Block Grant funds stalled, Dean Didario, the incubator’s loan fund manager, worked with Busse and state officials to resolve the problems, and Action Publishing received the much-needed loan. With the incubator’s support, Action Publishing reached $1 million in sales in its first 10 months of operation. By its third year, the company employed 70 people and had annual revenues of $2.1 million. Now established and in need of additional space, Action Publishing has “graduated” from the incubator and occupies its own 15,000-square-foot facility.³⁷
Increasingly, incubators no longer require small companies to locate physically within the incubator site, but they still provide business assistance to the small companies that join the incubator. These incubators connect entrepreneurs with a network of experts, consultants, and advisors and, in many cases, potential sources of financing.

Christie Stone, founder of Ticbeans, a New Orleans coffee distributor, joined Idea Village, a local incubator, but kept her warehouse space and office in their original location. Within a month of joining Idea Village, Stone had access to a team of accountants, lawyers, and advisors who helped her to implement and update her business plan. So far, she says she has paid just $3,000 for professional and consulting services that would have cost her more than $30,000 if she had not purchased them through the incubator. “We have been overwhelmed by what they have done for us,” says Stone, who plans to use the incubator’s network of contacts to raise $500,000 in capital to finance the company’s expansion into other states.38

**Layout and Design Considerations**

Once an entrepreneur chooses the best location for the business, the next question deals with designing the proper layout for the building to maximize sales (retail) or productivity (manufacturing or service). Layout is the logical arrangement of the physical facilities in a business that contributes to efficient operations, increased productivity, and higher sales. Planning for the most effective and efficient layout in a business environment can produce dramatic improvements in a company’s operating effectiveness and efficiency. An attractive, effective layout can help a company’s recruiting efforts. One study conducted by the American Association of Interior Designers found that employees rated the look and feel of their workspaces as the third-most-important consideration (after salary and benefits) when deciding whether to accept or to quit a job.39 The following factors have a significant impact on a building’s layout and design.

**Size** A building must be large enough to accommodate a business’s daily operations comfortably. If it is too small at the outset of operations, efficiency will suffer. There must be room enough for customers’ movement, inventory, displays, storage, work areas, offices, and restrooms. Haphazard layouts undermine employee productivity and create organizational chaos. Too many small business owners start their operations in locations that are already overcrowded and lack the ability to be expanded. The result is that an owner is forced to make a costly move to a new location within the first few years of operation.

Lack of adequate room in the building may limit a company’s growth. Most small businesses wait too long before moving into larger quarters, and they fail to plan their new space arrangements properly. To avoid this problem, experts recommend that new business owners plan their space requirements one to two years ahead and update the estimates every six months. When preparing the plan, entrepreneurs should include the expected growth in the number of employees, manufacturing, selling, or storage space requirements and the number and location of branches to be opened.

**Construction and External Appearance** Is the construction of the building sound? It pays to have an expert look it over before buying or leasing the property. Beyond the soundness of construction, does the building have attractive external and internal appearances? The physical appearance of the building provides customers with their first impression of a business. This is especially true in retail businesses. Many retailers provide the customer with a consistent building appearance as they add new units (e.g., fast food restaurants and motels). Is the building’s appearance consistent with the entrepreneur’s desired image for the business?

Small retailers must recognize the importance of creating the proper image for their stores and how their shops’ layouts and physical facilities influence this image. A store’s external appearance contributes significantly to establishing its identity among its target
customers. In many ways a building’s appearance sets the tone for what the customer can expect in the way of quality and service. The appearance should therefore reflect the business’ “personality.” Should the building project an exclusive image or an economical one? Is the atmosphere informal and relaxed or formal and business-like? Physical facilities send important messages to customers.

Communicating the right signals through layout and physical facilities is an important step in attracting a steady stream of customers. Retail consultant Paco Underhill advises merchants to “seduce” passersby with their storefronts. “The seduction process should start a minimum of 10 paces away,” he says.\(^{40}\)

When Pacific Sunwear, a surfing-oriented clothing company, redesigned its mall stores, managers opted for a unique curved entryway designed to remind shoppers of the “curl”—the tunnel that surfers see when they are inside a wave. Looking into the store, shoppers’ eyes are drawn straight to the illuminated back wall, where shoes are displayed in a creative design.\(^{41}\)

A store’s window display can be a powerful selling tool if used properly. Often, a store’s display window is an afterthought, and many business owners neglect to change their displays often enough. The following tips will help entrepreneurs create window displays that will sell:

- **Keep displays simple.** Simple, uncluttered, and creative arrangements of merchandise draw the most attention and have the greatest impact on potential customers.
- **Keep displays clean and current.** Dusty, dingy displays or designs that are outdated send a negative message to passersby.
- **Change displays frequently.** Customers do not want to see the same merchandise on display every time they enter a store. Experts recommend changing displays at least quarterly, but stores selling trendy items should change their displays twice a month.
- **Get expert help, if necessary.** Not every business owner has a knack for designing window displays. Their best bet is to hire a professional or to work with the design department at a local college or university.

**Entrances** All entrances to a business should invite customers in. Wide entryways and attractive merchandise displays that are set back from the doorway can draw customers into a business. A store’s entrance should catch passing customers’ attention and draw them inside. “That’s where you want somebody to slam on the brakes and realize they’re going somewhere new,” says retail consultant Paco Underhill.\(^{42}\) Retailers with heavy traffic flows such as supermarkets or drugstores often install automatic doors to ensure a smooth traffic flow into and out of their stores. Retailers should remove any barriers that interfere with customers’ easy access to the storefront. Broken sidewalks, sagging steps, mud puddles, and sticking or heavy doors not only create obstacles that might discourage potential customers, but they also create legal hazards for a business if they cause customers to be injured.

**Americans with Disabilities Act (ADA)**

A law that requires practically all businesses to make their facilities available to physically challenged customers and employees. In addition, the law requires businesses with 15 or more employees to accommodate physically challenged candidates in their hiring practices. Most states have similar laws, many of them more stringent than the ADA, that apply to smaller companies as well. The rules of the these state laws and the ADA’s Title III are designed to ensure that mentally and physically challenged customers have equal access to a firm’s goods or services. For instance, the act requires business owners to remove architectural and communication barriers when “readily achievable.” The ADA allows flexibility in how a business achieves this equal access, however. For example, a restaurant could either provide menus in Braille or could offer to have a staff member read the menu to blind customers. A small dry cleaner might not be able to add a
wheelchair ramp to its storefront without incurring significant expense, but the owner could comply with the ADA by offering curbside pickup and delivery services for disabled customers at no extra charge.

Although the law allows a good deal of flexibility in retrofitting existing structures, buildings that were occupied after January 25, 1993, must be designed to comply with all aspects of the law. For example, buildings with three stories or more must have elevators; an access ramp must be in place anywhere the floor level changes by more than one-half inch. In retail stores, checkouts aisles must be wide enough—at least 36 inches—to accommodate wheelchairs. Restaurants must have five percent of their tables accessible to wheelchair-bound patrons.

Complying with the ADA does not necessarily require businesses to spend large amounts of money. The Justice Department estimates that more than 20 percent of the cases customers have filed under Title III involved changes the business owners could have made at no cost, and another 60 percent would have cost less than $1,000.43 In addition, companies with $1 million or less in annual sales or with 30 or fewer full-time employees that invest in making their locations more accessible to all qualify for a tax credit. The credit is 50 percent of their expenses between $250 and $10,500. Businesses that remove physical, structural, and transportation barriers for disabled employees and customers also qualify for a tax deduction of up to $15,000.

The ADA also prohibits any kind of employment discrimination against anyone with a physical or mental disability. A physically challenged person is considered to be “qualified” if he or she can perform the essential functions of the job. The employer must make “reasonable accommodation” for a physically challenged candidate or employee without causing “undue hardship” to the business.

The Americans With Disabilities Act has affected in a positive way how businesses deal with this segment of its customers and employees. The Department of Justice offers a technical assistance program that provides business owners with free information and technical assistance concerning the ADA. It also has an ADA Hotline that owners can call for information and publications on the ADA (800-514-0301).

**Signs** One of the lowest-cost and most effective methods of communicating with customers is a business sign. Signs tell potential customers what a business does, where it is, and what it is selling. The United States is a very mobile society, and a well-designed, well-placed sign can be a powerful tool for reaching potential customers.

A sign should be large enough for passersby to read it from a distance, taking into consideration the location and speed of surrounding traffic arteries. To be most effective, the message should be short, simple, and clear. A sign should be legible in both daylight and at night; proper illumination is a must. Contrasting colors and simple typefaces are best. The most common problems with business signs are that they are illegible, poorly designed, improperly located, poorly maintained, and use color schemes that are unattractive or are hard to read.

Before investing in a sign, an entrepreneur should investigate the local community’s sign ordinance. In some cities and towns, local regulations impose restrictions on the size, location, height, and construction materials used in business signs.

**Building Interiors** Like exterior considerations, the functional aspects of building interiors are very important and require careful attention to detail. Designing a functional, efficient interior is not easy. Technology has changed drastically the way employees, customers, and the environment interact with one another, but smart entrepreneurs realize that they can influence the effectiveness of those interactions with well-designed layouts. The result can be a boost to a company’s sales and profits. For instance, as their customers have changed, department stores and clothing retailers have modified the layouts of their stores. Because shoppers are busier than ever and want an efficient shopping experience (particularly for men), stores have moved away from the traditional departments (e.g., shoes, cosmetics, men’s suits) and are organizing their merchandise by “lifestyle categories” such as sports, women’s contemporary, men’s business casual, and others.
These displays expose customers to merchandise that they otherwise might have missed and make it easier for them to, say, put together an entire outfit without having to roam from one department to another. Clothing retailer Gap recently began a makeover of its stores that has resulted in customers staying longer and spending more. Because men and women tend to shop differently, redesigned stores feature separate entrances for each. Women’s sections are organized into lifestyle sections, and accessories are scattered throughout the store to encourage browsing. Because men prefer to shop more quickly, the men’s side feature signage showing how to build the outfits on display, and individual items are neatly displayed and organized by size for efficiency.\footnote{44}

Piecing together an effective layout is not a haphazard process. Ergonomics, the science of adapting work and the work environment to complement employees’ strengths and to suit customers’ needs, is an integral part of a successful design. For example, chairs, desks, and table heights that allow people to work comfortably can help employees to perform their job faster and more easily. Design experts claim that improved lighting, better acoustics, and proper climate control benefit the company as well as employees. An ergonomically designed workplace can improve workers’ productivity significantly and lower days lost due to injuries and accidents. Unfortunately, many businesses fail to incorporate ergonomic design principles into their layouts, and the result is costly. Every year, 1.8 million workers experience injuries related to repetitive motion or overexertion. The most frequent and most expensive workplace injuries are musculoskeletal disorders (MSDs), which cost U.S. businesses $20 billion in workers’ compensation claims each year. According to Occupational Safety and Health Administration (OSHA), MSDs account for 34 percent of all lost-work-day injuries and illnesses and one-third of all workers compensation claims.\footnote{45} Workers who spend their days staring at computer monitors (a significant and growing proportion of the workforce) often are victims of MSDs.

The most common MSD is carpal tunnel syndrome (CTS), which occurs when repetitive motion causes swelling in the wrist that pinches the nerves in the arm and hand. Studies by the Bureau of Labor Statistics show that more than 42 percent of carpal tunnel syndrome cases require more than 30 days away from work.\footnote{46} The good news for employees, however, is that preventing injuries, accidents, and lost days does not require spending thousands of dollars on ergonomically correct solutions. Most of the solutions to MSDs are actually quite simple and inexpensive.

Sequins International, a maker of sequined fabrics and trimmings in Woodside, New York, uses adjustable chairs and machinery as well as automatic spooling devices to reducing workers’ repetitive motions and taxing physical demands. These simple changes eliminated carpal tunnel syndrome and cut workers compensation costs to just $800, down from $98,000 five years before.\footnote{47}

Some solutions are decidedly low tech.

When Designer Checks, a maker of custom checks based in Anniston, Alabama, consulted with an occupational therapist, owner Grady Burrow learned that one of the best ways to fight MSDs among its computer-dependent workforce is simply for workers to take frequent breaks and to move around. Department heads began scheduling regular exercise breaks designed to stretch employees’ necks, shoulders, and hands. Before long, many managers began livening up their exercise breaks with music and dancing. Visitors to Designer Check’s plant are likely to see managers and employees take to the production floor for a rousing rendition of the Macarena or the Hokey Pokey.\footnote{48}

When planning store, office, or plant layouts, business owners usually focus on minimizing costs. Although staying within a budget is important, minimizing injuries and enhancing employees’ productivity with an effective layout should be the overriding issues. Many exhaustive studies have concluded that changes in office design have a direct
impact on workers’ performance, job satisfaction, and ease of communication. In a reversal of the trend toward open offices separated by nothing more than cubicles, businesses are once again creating private offices in their workspaces. Many businesses embraced open designs, hoping that they would lead to greater interaction among workers. They have discovered, however, that most office workers need privacy and quiet surroundings to be productive. Michael Brill, an office space consultant, studied 11,000 workers to determine the factors that most affect their productivity and found that the ability to do distraction-free work topped the list. Rather than encourage teamwork, open offices leave workers distracted, frustrated, and less productive—just like the characters in the Dilbert cartoon strip. “Open offices do lead to more unstructured communication, but those same offices can lead to problems of [employee] concentration,” says Babson College’s Tom Davenport, whose research shows that workplace design has a direct impact on white-collar workers’ performances and productivity.

Flyswat Inc., a company that develops customized tools and services for Internet browsing, designed the interior of their building to appeal to their 20-something, high-tech workforce. Co-founders John Rodkin, Leo Chang, and Raymond Crouse created a 150-square-foot indoor beach, complete with 3,000 pounds of sand, in their third-floor San Francisco office! Employees can scrunch the sand between their toes while gazing at banana trees, bird of paradise plants, tiki torches, and walls, floors, and ceilings painted to resemble grass and sky. “Why bother?” visitors ask. Because Flyswat employees often spend 60-plus hours a week there, the company founders want to give them a fun, enjoyable place to work. The company buys dinner for its workers four nights a week, maintains a fully stocked kitchen, and offers showers and a laundry room.

On a more technical level, when evaluating an existing building’s interior, an entrepreneur must be sure to determine the integrity of its structural components. Are the building’s floors sufficiently strong to hold the business’s equipment, inventories, and personnel? Strength is an especially critical factor for manufacturing firms that use heavy equipment. When multiple floors exist, are the upper floors anchored as solidly as the primary floor? Can inventory be moved safely and easily from one area of the plant to another? Is the floor space adequate for safe and efficient movement of goods and people? Consider the cost of maintaining the floors. Hardwood floors may be extremely attractive but require expensive and time-consuming maintenance. Carpeted floors may be extremely attractive in a retail business but may be totally impractical for a quality manufacturing firm. Entrepreneurs must consider the utility, durability, maintenance requirements, attractiveness, and, if important, effectiveness in reducing noise of carpet.
Like floors, walls and ceilings must be both functional and attractive. On the functional side, walls and ceilings should be fireproof and soundproof. Are the colors of walls and ceilings compatible, and do they create an attractive atmosphere for customers and employees? For instance, many high-tech companies use bright, bold colors in their designs because they appeal to their young employees. On the other hand, more-conservative companies such as accounting firms and law offices decorate with more subtle, subdued tones because they convey an image of trustworthiness and honesty. Upscale restaurants that want their patrons to linger over dinner use deep, luxurious tones and soft lighting to create the proper ambiance. Fast food restaurants, on the other hand, use strong, vibrant colors and bright lighting to encourage customers to get in and out quickly, ensuring the fast table turnover they require to be successful. In most cases, ceilings should be done in light colors to reflect the store’s lighting.

For many businesses, a drive-through window adds another dimension to the concept of customer convenience and is a relatively inexpensive way to increase sales. Although drive-through windows are staples at fast food restaurants and banks, they can add value for customers in a surprising number of businesses.

When Marshall Hoffman relocated his business, Steel Supply Company, to a building that had been used as a bank, the idea of using the drive-through window intrigued him. Looking for a way to improve customer service, Hoffman transformed the former bank lobby into his showroom floor and began advertising the convenience of buying steel at the drive-through window. Customers place their steel orders by telephone, pull up to the window, pay, and receive a ticket. The order goes by computer to a warehouse Hoffman built on the site. By the time the customer pulls up to the warehouse, the order is waiting. The window has been a hit with customers. Since moving into its new location, Steel Supply’s sales have grown from $3.5 million to more than $6 million.52

**Lighting and Scent** Good lighting allows employees to work at maximum efficiency and comfort. Proper lighting is measured by what is ideal for the job being done. Proper lighting in a factory may be quite different from that required in an office or retail shop. Retailers often use creative lighting to attract customers to a specific display. Jewelry stores provide excellent examples of how lighting can be used to display merchandise effectively.

Lighting provides a good return on investment, given its overall impact on a business. Few people seek out businesses that are dimly lit because they convey an image of untrustworthiness. The use of natural light gives a business an open and cheerful look and actually can boost sales. A series of studies by energy research firm Heschong Mahone Group found that stores using natural light experience sales that are 40 percent higher than those of similar stores using fluorescent lighting.53 In a retail environment, proper lighting should highlight featured products and encourage customers to stop and look at them.

Research shows that scents can have a powerful effect in retail stores. The Sense of Smell Institute reports that the average human being can recognize 10,000 different odors and can recall scents with 65 percent accuracy after one year, a much higher recall rate than visual stimuli produce. In one experiment, when Eric Spangenberg of Washington State University diffused a subtle scent of vanilla into the women’s department of a store and rose maroc into the men’s department, he discovered that sales nearly doubled; he also discovered that if he switched the scents, sales in both departments fell well below their normal average.54 Many companies—from casinos to retail stores—are beginning to understand the power of using scent as a marketing tool. Almost every bakery uses a fan to push the smell of fresh-baked breads and sweets into pedestrian traffic lanes, tempting passersby to sample some of their delectable goodies. Appliance retailer H.H. Gregg has discovered that the faint smell of home cooking, such as apple pie or sugar cookies, boosted its in-store sales by 33 percent.55
Where’s My Cubicle?

Recently, Tim Jenkins, Darran Littlefield, and Jim Hodge, co-founders of consulting firm Point B, met with their newest employee. At most companies that would mean an orientation session that included a tour and introductions to the remainder of the staff before showing him to his cubicle. At Point B, however, it involved a lively conversation about the company over a cappuccino at a nearby Starbucks. In fact, Jenkins and Littlefield never have taken a new hire on a tour or showed one to his or her cubicle. That’s because they don’t have an office!

Despite generating $46 million in annual revenue, Point B has only virtual offices. Former employees of a large consulting firm, Jenkins, Littlefield, and Hodge grew tired of spending half their time in a stuffy office building and the other half on the road or in a client’s office. When they launched Point B, they were determined not to force their employees into that same lifestyle. Today Point B has 223 employees working in Seattle, Denver, Phoenix, and Portland. Rather than hop on planes or into rental cars, as most consultants do, Point B employees work only for local clients and spend two to three days a week working from offices in their homes and the remaining time in their clients’ offices.

The result is a very lean—and very inexpensive—organization. Unlike most consulting firms, Point B does not incur expensive rental rates or burgeoning travel expenses, which enables them to offer clients lower prices and employees generous salary and benefit packages.

One key disadvantage of a virtual office, however, is the lack of opportunity to build a meaningful company culture among employees who do not share the same workspace. As efficient as telephone calls and e-mails are, they cannot substitute for face time with colleagues.

Therefore, the founders of Point B hold monthly social gatherings for all of their employees in each of its four markets. In addition, every quarter, employees gather together to review sales prospects and financial forecasts. Regular training sessions on topics ranging from ethics to sales techniques also get employees together, as do informal gatherings, for which the company pays.

Finding the right employees is an important piece of the puzzle for Point B, and Jenkins, Littlefield, and Hodge spend considerable time, energy, and resources to find and recruit candidates who can handle the autonomy and are self-motivated. Only four percent of applicants are hired at Point B, and those who are hired tend to stay. The company’s employee turnover rate is just 10 percent, compared to an industry average of 20 percent. The co-founders of Point B enjoy the flexibility that their company’s structure (or lack of it) gives them as much as their employees do. “Rather than building our lives around our business, we’re building the business around our lives,” says Jenkins.

1. What impact—both positive and negative—does a virtual office have on a small company and the people who work for it?
2. Develop a list of recommendations for small companies that use virtual offices or have significant numbers of employees engaged in telecommuting. Be sure to address selection practices, building a company culture, and communicating effectively as well as other relevant topics.
3. Would you want to work for a company such as Point B that has no physical office space? Explain.


Layout: Maximizing Revenues, Increasing Efficiency, or Reducing Costs

The ideal layout for a building depends on the type of business it houses and on the entrepreneur’s strategy for gaining a competitive edge. Retailers design their layouts with the goal of maximizing sales revenue; manufacturers see layout as an opportunity to increase efficiency and productivity and to lower costs.

LEARNING OBJECTIVES

6. Explain the principles of effective layouts for retailers, service businesses, and manufacturers.
Layout for Retailers

Retail layout is the arrangement of merchandise in a store and its method of display. A retailer’s success depends, in part, on a well-designed floor display. Retail expert Paco Underhill says “a store’s interior architecture is fundamental to the customers’ experience—the stage upon which a retail company functions.” A retail layout should pull customers into the store and make it easy for them to locate merchandise, compare price, quality, and features, and ultimately make a purchase. In addition, a floor plan should take customers past displays of other items that they may buy on impulse. Between 65 and 70 percent of all buying decisions are made once a customer enters a store, which means that the right layout can boost sales significantly. One study found that 68 percent of the items bought on major shopping trips (and 54 percent on smaller trips) were impulse purchases. Shoppers in this study were heavily influenced by in-store displays, especially those at the ends of aisles (called end-cap displays).

Retailers have always recognized that some locations within a store are superior to others. Customer traffic patterns give the owner a clue to the best location for the highest-gross-margin items. Merchandise purchased on impulse and convenience goods should be located near the front of the store. Items people shop around for before buying and specialty goods will attract their own customers and should not be placed in prime space. Prime selling space should be restricted to products that carry the highest markups.

Layout in a retail store evolves from a clear understanding of customers’ buying habits. If customers come into the store for specific products and have a tendency to walk directly to those items, placing complementary products in their path will boost sales. Observing customer behavior can help the owner to identify the “hot spots” where merchandise sells briskly and “cold spots” where it may sit indefinitely. By experimenting with factors such as traffic flow, lighting, aisle size, music type and audio levels, signs, and colors, an owner can discover the most productive store layout. For instance, one of the hot spots in a Barnes & Noble bookstore during the busy holiday season is the “Christmas table” at the front of the children’s department. The table, which holds between 75 and 125 titles, draws lots of traffic, making it the most desired spot for a book aimed at children.

Retailers have three basic layout patterns to choose from: the grid, the free form, and the boutique. The grid layout arranges displays in rectangular fashion so that aisles are parallel. It is a formal layout that controls the traffic flow through the store. Supermarkets and discount stores use the grid layout because it is well suited to self-service stores. This layout uses the available selling space most efficiently, creates a neat, organized environment, and facilitates shopping by standardizing the location of items. Figure 14.3 shows a typical grid layout.

Unlike the grid layout, the free-form layout is informal, using displays of various shapes and sizes. Its primary advantage is the relaxed, friendly shopping atmosphere it creates, which

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grid layout
a formal arrangement of displays arranged in a rectangular fashion so that aisles are parallel.

free-form layout
an informal arrangement of displays of various shapes and sizes.

**FIGURE 14.3**
The Grid Layout

![Diagram of the Grid Layout](image-url)
encourages customers to shop longer and increases the number of impulse purchases they make. Still, the free-form layout is not as efficient as the grid layout in using selling space, and it can create security problems if not properly planned. Figure 14.4 illustrates a free-form layout.

The **boutique layout** divides the store into a series of individual shopping areas, each with its own theme. It is like building a series of specialty shops into a single store. The boutique layout is more informal and can create a unique shopping environment for customers; small department stores sometimes use this layout (see Figure 14.5).

Whichever layout pattern they use, business owners should display merchandise as attractively as their budgets allow. Customers’ eyes focus on displays, which tell them the type of merchandise the business sells. It is easier for customers to relate to one display than to a rack or shelf of merchandise. Open displays of merchandise can surround the focus display, creating an attractive selling area. Spacious aisles provide shoppers an open view of

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**FIGURE 14.4**
The Free-Form Layout

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**FIGURE 14.5**
The Boutique Layout
merchandise and reduce the likelihood of shoplifting. One study found that shoppers, especially women, are reluctant to enter narrow aisles in a store. Narrow aisles force customers to jostle past one another (experts call this the “butt-brush factor”), which makes them extremely nervous. The same study also found that placing shopping baskets in several areas around a store can increase sales. Seventy-five percent of shoppers who pick up a basket buy something, compared to just 34 percent of customers who do not pick up a basket.59

Retailers can also boost sales by displaying together items that complement each other. For example, displaying ties near dress shirts or handbags next to shoes often leads to multiple sales. Placement of items on store shelves is important, too, and storeowners must keep their target customers in mind when stocking shelves. For example, putting hearing aid batteries on bottom shelves where the elderly have trouble getting to them or placing popular children’s toys on top shelves where little ones cannot reach them can hurt sales. Even background music can be a merchandising tool if the type of music playing in a store matches the demographics of its target customers. Music can be a stimulant to sales because it has been proven to reduce resistance, warps the sense of time, allowing shoppers to stay longer in the store, and helps to produce a positive mental association between the music and the intended image of the store, something experts call audio architecture.60

Retailers must remember to separate the selling and nonselling areas of a store. Never waste prime selling space with nonselling functions (storage, office, dressing area, etc.). Although nonselling activities are necessary for a successful retail operation, they should not take precedence and occupy valuable selling space. Many retailers place their nonselling departments in the rear of the building, recognizing the value of each foot of space in a retail store and locating their most profitable items in the best selling areas.

Not every portion of a small store’s interior space is of equal value in generating sales revenue. Certain areas contribute more to revenue than others. The value of store space depends on floor location in a multistory building, location with respect to aisles and walkways, and proximity to entrances. Space values decrease as distance from the main entry-level floor increases. Selling areas on the main level contribute a greater portion to sales than those on other floors in the building because they offer greater exposure to customers than either basement or higher-level locations. Therefore, main-level locations carry a greater share of rent than other levels.

Space values also depend on their position relative to the store entrance. Typically, the farther away an area is from the entrance, the lower is its value. Another consideration is that most shoppers turn to the right on entering a store and move around it counterclockwise.

**FIGURE 14.6**  
Space Values for a Small Store  
(This apparently is culturally determined; studies of shoppers in Australia and Great Britain find that they turn left on entering a store.) Finally, only about one-fourth of a store’s customers will go more than halfway into the store. Based on these characteristics, Figure 14.6 illustrates space values for a typical small store.

Understanding the value of store space ensures proper placement of merchandise. The items placed in the high-rent areas of the store should generate adequate sales and contribute enough to profit to justify their high-value locations. The decline in value of store space from front to back of the shop is expressed in the 40-30-20-10 rule. This rule assigns 40 percent of a store’s rental cost to the front quarter of the shop, 30 percent to the second quarter, 20 percent to the third quarter, and 10 percent to the final quarter. Similarly, each quarter of the store should contribute the same percentage of sales revenue.

For example, suppose that a small department store anticipates $720,000 in sales this year. Each quarter of the store should generate the following sales volume:

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Sales Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front quarter</td>
<td>$288,000</td>
</tr>
<tr>
<td>Second quarter</td>
<td>$216,000</td>
</tr>
<tr>
<td>Third quarter</td>
<td>$144,000</td>
</tr>
<tr>
<td>Fourth quarter</td>
<td>$ 72,000</td>
</tr>
<tr>
<td>Total</td>
<td>$720,000</td>
</tr>
</tbody>
</table>

### Hands on ... How to

#### Create the Ideal Layout Design

Although their lines of business could not be farther apart, both Dell Computer and Victoria’s Secret understand the importance of creating the right layout for their businesses.

Dell Computer and Victoria’s Secret couldn’t be farther apart in their lines of business; one makes PCs, and the other sells lingerie. One thing both companies have in common, however, is that they recently faced the question of what makes for an effective layout. Dell recently built a new state-of-the-art assembly plant in Winston-Salem, North Carolina, one in which maximizing productivity and efficiency and minimizing costs were essential, given the fiercely competitive industry in which it competes. Victoria’s Secret recently remodeled its stores, a move that was designed to boost sales and
profits because, like Dell, the company faces tough competition in an industry filled with difficult challenges. What principles did they use in their new designs? Here is a glimpse into how Dell and Victoria’s Secret created layouts for a new plant and remodeled stores in ways that have produced positive results for both companies.

**Dell Computer**
Dell Computer is well known for its core competencies in supply chain management and manufacturing processes. Dell’s superior manufacturing efficiency enables the company to sell its made-to-order PCs for 10 to 20 percent less than its rivals. Although no one builds PCs more efficiently than Dell, downward pressure on PC prices has intensified and competition from rivals has escalated, which means that constantly improving efficiency and quality is paramount. At 750,000 square feet, Dell’s new factory, called WS1, is twice the size of its Austin, Texas, facility. Based on 10 years of research, the factory is a modern marvel of lean manufacturing, efficiency, and ergonomics, capable of turning out a new PC every five seconds:

- **Heavy lifting.** Rather than allow workers to pack finished PCs into boxes for shipment, robots handle this task. Why? In the past, Dell saw too many of its workers injured by repetitively lifting hefty PCs into boxes. Robots also pluck computer chassis and put them on conveyer belts to minimize human handling.

- **Flexible manufacturing.** At Dell’s older plants, assembly lines can produce only one type of computer without being shut down and retooled. WS1 employs a flexible manufacturing system that enables any assembly line to produce any of Dell’s 40 different computer models one right after another without shutting down for retooling. “Other factories have a process-driven flow,” explains designer Richard Komm. “WS1 is focused on one thing: How do we get it to the customer in the shortest amount of time.” This one change has slashed Dell’s factory downtime by 30 percent.

- **Teamwork.** Rather than have employees working alone at stations to build PCs, WS1 uses a “progressive build” concept in which three workers, each with a specific set of tasks, work in tandem to build a PC. The result: Employees learn their jobs faster, allowing Dell to reduce errors by as much as 30 percent.

- **Speed testing.** Working with each three-person progressive-build team is a tester whose job is to run a set of standard checks on every PC built to make sure that it is wired and assembled properly. If a machine passes this quick testing procedure, it moves on to a more extensive testing procedure farther down the line. If a machine fails the quick test, the employee notifies the team that made it so they can get the job right. “The faster you get feedback to the operator, the fewer the number of defects,” explains Komm.

- **Lean inventory.** Every assembly line keeps a small supply of the most frequently used parts so that workers do not have to “run to the supermarket” (a nearby storage area) to build a PC. These storage areas are located in exactly the same place on every assembly line so that workers and supervisors can see in a glance which supplies are running low. Employees who serve as “parts runners” restock supplies frequently so that the lines never have to shut down for lack of parts.

**Victoria’s Secret**
Victoria’s Secret is well known for its live supermodel runway show featuring beauties such as Heidi Klum and Tyra Banks, but customers in the company’s retail stores weren’t getting what they expected. “Traditionally, our stores have had soft, feminine environments, but the ad campaigns were sexier,” says Kathleen Baldwin, vice-president of store design. Walking into a Victoria’s Secret retail store was more like taking a journey back into the Victorian era rather than embarking on an adventure into sexy, somewhat naughty, lingerie. The company decided that a major remake of its retail stores would boost customer traffic and sales and would encourage customers to linger for longer time periods. The goal was to create a more upscale image for Victoria’s Secret in customers’ minds. Here are some of the changes the company made:

- **An inviting “landing strip.”** Victoria’s Secret stores offer shoppers a spacious lobby that serves as a calming respite between the busy mall walkway or sidewalk and the bustling store interior. Although smaller stores don’t have the room to offer this decompression zone, they are designed to be less “busy,” containing more open space and fewer standing racks. Stores now feature more merchandise displays on the walls, where they will get plenty of notice.
A central hub. Previously, Victoria’s Secret’s cosmetics sections adjoined the retail stores but had separate entrances. The new layout places the cosmetics counter in the center of the store to act as a magnet, drawing customers in and inviting them to stay longer.

A classier color scheme. Victoria’s Secret uses pink as its color “brand,” but designers learned from the older stores that a little pink goes a long way. Originally designed to give the impression of a fantasy boudoir, the stores were bathed in Pepto-Bismol colors. The new layout features a simpler color scheme of cream and black with splashes of pink here and there to allow the colorful merchandise to pop out as customers browse.

Bring the catalog to life. Photos of supermodels in Victoria’s Secret products now adorn store walls, and strategically placed slim television screens showing footage from past runway shows draw customers into areas of the store that normally are less traveled. Standard mannequins hardly do justice to many of the company’s barely-there garments; therefore, designers purchased much more realistic wax-museum-type mannequins to display merchandise.

A menu of choices. Rather than cram lots of racks onto the showroom floor, creating a maze that shoppers had to navigate, the new layout features displays built directly into the walls of the store. Stocks of high-volume items such as bras and panties get prominent locations, and above them, grids of boxes contain molded plastic torsos that advertise underwear choices “almost like a bra and panty menu” according to Baldwin.


Layout for Manufacturers

Manufacturing layout decisions take into consideration the arrangement of departments, workstations, machines, and stock-holding points within a production facility. The general objective is to arrange these elements to ensure a smooth workflow (in a production facility) or a particular traffic pattern (in a service facility or organization).

Manufacturing facilities have come under increasing scrutiny as firms attempt to improve quality, decrease inventories, and increase productivity through facilities that are integrated, flexible, and controlled. Facility layout has a dramatic effect on product mix, product processing, and material handling, storage, and control, as well as production volume and quality.

Factors in Manufacturing Layout The ideal layout for a manufacturing operation depends on a number of factors, including the following:

- **Type of product.** Product design and quality standards; whether the product is produced for inventory or for order; and the physical properties such as the size of materials and products, special handling requirements, susceptibility to damage, and perishibility.

- **Type of production process.** Technology used; types of materials handled; means of providing a service; and processing requirements in terms of number of operations involved and amount of interaction between departments and work centers.

- **Ergonomic considerations.** To ensure worker safety; to avoid unnecessary injuries and accidents; and to increase productivity.

- **Economic considerations.

- **Space availability within the facility itself.**

Types of Manufacturing Layouts. Manufacturing layouts are categorized by either the workflow in a plant or by the production system’s function. There are three basic types of layouts that manufacturers can use separately or in combination—product, process, and
**Product (line) Layout**
an arrangement of workers and equipment according to the sequence of operations performed on a product.

**Process Layout**
an arrangement of workers and equipment according to the general function they perform, without any regard to any particular product or customer.

**Fixed-Position Layout**
an arrangement in which materials do not move down a production line but rather, because of their weight, size, or bulk, are assembled on the spot.

Fixed position—and they are differentiated by their applicability to different conditions of manufacturing volume.

**Product Layouts** In a **product (line) layout**, a manufacturer arranges workers and equipment according to the sequence of operations performed on the product. Conceptually, the flow is an unbroken line from raw material input or customer arrival to finished goods or customer departure. This type of layout is applicable to rigid-flow, high-volume, continuous process or a mass-production operation, or when the service or product is highly standardized. Automobile assembly plants, paper mills, and oil refineries are examples of product layouts.

Product layouts offer the advantages of lower material handling costs; simplified tasks that can be done with low-cost, lower-skilled labor, reduced amounts of work-in-process inventory, and relatively simplified production control activities. All units are routed along the same fixed path, and scheduling consists primarily of setting a production rate.

Disadvantages of product layouts are their inflexibility, monotony of job tasks, high fixed investment in specialized equipment, and heavy interdependence of all operations. A breakdown in one machine or at one workstation can idle the entire line. This layout also requires business owners to duplicate many pieces of equipment in the manufacturing facility, which for a small firm can be cost-prohibitive.

**Process Layouts** In a **process layout**, a manufacturer groups workers and equipment according to the general function they perform, without regard to any particular product or customer. Process layouts are appropriate when production runs are short, when demand shows considerable variation and the costs of holding finished goods inventory are high, or when the service or product is customized.

Process layouts have the advantages of being flexible for doing custom work and promoting job satisfaction by offering employees diverse and challenging tasks. Its disadvantages are the higher costs of materials handling, more-skilled labor, lower productivity, and more complex production control. Because the work flow is intermittent, each job must be individually routed through the system, scheduled at the various work centers, and have its status monitored.

**Fixed-Position Layouts** In **fixed-position layouts**, materials do not move down a line as in a production layout but rather, due to the weight, size, or bulk of the final product, are assembled in one spot. In other words, workers and equipment go to the material rather than having the material flow down a line to them. Aircraft assembly plants and shipyards typify this kind of layout.

**Functional Layouts** Many layouts are designed with more than one objective or function in mind, and therefore combinations of the various layouts are common. For example, a supermarket, though primarily arranged on the basis of marketing, is partly a storage layout; a cafeteria represents a layout not only by marketing function but also by work flow (a food assembly line); and a factory may arrange its machinery in a process layout but perform assembly operations in a fixed sequence, as in a product layout.

**Designing Layouts** The starting point in layout design is determining how and in what sequence product parts or service tasks flow together. One of the most effective techniques is to create an overall picture of the manufacturing process using assembly charts and process flowcharts. Given the tasks and their sequence, plus knowledge of the volume of products to be produced or of customers to be served, an entrepreneur can analyze space and equipment needs to get an idea of the facility’s capacity. When using a product or line layout, these demands take precedent, and manufacturers must arrange equipment and workstations to fit the production tasks and their sequence. With a process or functional layout, different products or customers with different needs place demands on the facility. Rather than having a single best flow, there may be one flow for each product or customer,
and compromises in efficiency may be necessary. As a result, the layout for any one product or customer may not result in the achievement of optimal capacity but is flexible to serve the specific situation.

**Analyzing Production Layouts** Although there is no general procedure for analyzing the numerous interdependent factors that enter into layout design, specific layout problems lend themselves to detailed analysis. Two important criteria for selecting and designing a layout are worker effectiveness and material handling costs. A layout should improve job satisfaction and use workers at the highest skill level for which they are being paid. For instance, just as a machinist leaving his or her work station to secure needed tools is inefficient, so is an engineer spending half a working day delivering blueprints, a task a clerk could perform.

Manufacturers can lower materials handling costs by using layouts designed so that product flow is automated whenever possible and flow distances and times are minimized. The extent of automation depends on the level of technology and amount of capital available, as well as behavioral considerations of employees. Flow distances and times are usually minimized by locating sequential processing activities or interrelated departments in adjacent areas. The following features are important to a lean, efficient manufacturing layout:

1. Planned materials flow pattern
2. Straight-line layout where possible
3. Straight, clearly-marked aisles
4. Backtracking kept to a minimum
5. Related operations located close together
6. Minimum amount of in-process inventory on hand
7. Easy adjustment to changing conditions
8. Minimum materials handling distances
9. Minimum of manual handling of materials and products
10. Ergonomically designed work centers
11. Minimum distances between work stations and processes
12. No unnecessary re-handling of material
13. Minimum handling between operations
14. Minimum storage
15. Materials delivered to production employees just in time
16. Materials efficiently removed from the work area
17. Maximum visibility; maintain clear lines of sight to spot problems and improve safety
18. Orderly materials handling and storage
19. Good housekeeping; minimize clutter
20. Maximum flexibility
21. Maximum communication

Using the principles of lean manufacturing can improve efficiency and lower costs.

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After second-generation business owner A.P. Merritt, Jr. studied the “5S” principles (Sort, Shine, Simplify, Standardize, and Sustain) that world-class auto maker Toyota uses in its lean manufacturing process, he became interested in applying the techniques to Merritt Tool, a 65-person company that manufactures parts for the aerospace industry. After studying and mapping the company’s existing processes, teams of employees began looking for ways to streamline them to improve efficiency and to minimize waste. As employees throughout the company began to buy into the process, improvements became apparent. The results that Merritt Tool achieved by switching to a lean manufacturing process included a lower accident rate, higher quality, lower costs, faster customer deliveries, shorter setup times, fewer machine breakdowns, and higher employee satisfaction.⁶¹
1. Explain the stages in the location decision: choosing the region, the state, the city, and then the final site.

The location decision is one of the most important decisions an entrepreneur will make, given its long-term effects on the company. An entrepreneur should look at the choice as a series of increasingly narrow decisions: Which region of the country? Which state? Which city? Which site? Choosing the right location requires an entrepreneur to evaluate potential sites with target customers in mind. Demographic statistics are available from a wide variety of sources, but government agencies such as the Census Bureau have a wealth of detailed data that can guide an entrepreneur in the location decision.

2. Describe the location criteria for retail and service businesses.

For retailers, the location decision is especially crucial. Retailers must consider the size of the trade area, the volume of customer traffic, number of parking spots, availability of room for expansion, and the visibility of a site.

3. Outline the basic location options for retail and service businesses.

Retail and service businesses have six basic location options: central business districts (CBDs); neighborhoods; shopping centers and malls; near competitors; outlying areas; and at home.

4. Explain the site selection process for manufacturers.

A manufacturer’s location decision is strongly influenced by local zoning ordinances. Some areas offer industrial parks designed specifically to attract manufacturers. Two crucial factors for most manufacturers are the reliability (and the cost of transporting) raw materials and the quality and quantity of available labor.

A foreign trade zone is a specially designated area in or near a U.S. customs port of entry that allows resident companies to import materials and components from foreign countries; assemble, process, manufacture, or package them; and then ship the finished product while either reducing or eliminating tariffs and duties.

Empowerment zones offer businesses tax breaks on the investments they make within zone boundaries.

Business incubators are locations that offer flexible, low-cost rental space to their tenants as well as business and consulting services. Their goal is to nurture small companies until they are ready to “graduate” into the business community. Many government agencies and universities offer incubator locations.

5. Describe the criteria used to analyze the layout and design considerations of a building, including the Americans with Disabilities Act.

When evaluating the suitability of a particular building, an entrepreneur should consider several factors: size (is it large enough to accommodate the business with some room for growth?); construction and external appearance (is the building structurally sound and does it create the right impression for the business?); entrances (are they inviting?); legal issues (does the building comply with the Americans with Disabilities Act?; if not, how much will it cost to bring it up to standard?); signs (are they legible, well-located, and easy to see?); interior (does the interior design contribute to our ability to make sales?; is it ergonomically designed?); and lights and fixtures (is the lighting adequate for the tasks workers will be performing?; what is the estimated cost of lighting?).

6. Explain the principles of effective layouts for retailers, service businesses, and manufacturers.

Layout for retail stores and service businesses depends on the owner’s understanding of the customers’ buying habits. Retailers have three basic layout options from which to choose: grid, free form, and boutique. Some areas of a retail store generate more sales per square foot and therefore are more valuable.

The goal of a manufacturer’s layout is to create a smooth, efficient work flow. Three basic options exist: product layout, process layout, and fixed-position layout. Two key considerations are worker productivity and materials handling costs.
logistical characteristics that your business plan may need to address.

**Business Plan Exercises**

**On the Web**

The Web offers valuable information regarding location information. One resource mentioned earlier in the marketing chapter of the text is the PRIZM information from Claritas, Inc. ([http://www.claritas.com/MyBestSegments](http://www.claritas.com/MyBestSegments)). This information identifies the most common market segments in your Zip Code and may be a way to validate whether you location is in proximity to your target markets. PRIZM categorizes U.S. consumer markets based on demographic and customer segmentation profiling research data by Zip Code. A restaurant and retail business, for example, will find that having its location close to its target customers is a critical success factor. Additional information, such as traffic counts and other location attributes, will also be important to include in your business plan.

**In the Software**

Open your business plan and go to the Your Company section. Here is where you will describe your ideal, potential, or existing location. If you do have a location for your business, you may also want to mention it in your SWOT analysis. If your location possesses some of the positive attributes mentioned in the chapter, identify your location as a strength. If your location has negative characteristics, recognize it as a weakness and have your plan address how you will overcome the challenges your location presents. Your location may be so important to your business that you will also list it under the Keys to Success section. Remember to include the expense for your location—rent, lease, or mortgage payments—into the financial section of your plan.

**Building Your Business Plan**

Selecting your location is an important strategic business decision for most business ventures. Your business plan can help you to profile, describe, and ultimately decide on the most attractive business location available. Once you have secured a location, your plan can leverage that location’s strongest attributes to optimize customer exposure, sales, and profits.

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### Discussion Questions

1. How do most small business owners choose a location? Is this wise?
2. What factors should a manager consider when evaluating a region in which to locate a business? Where are such data available?
3. Outline the factors important when selecting a state in which to locate a business.
4. What factors should a seafood processing plant, a beauty shop, and an exclusive jewelry store consider in choosing a location? List factors for each type of business.
5. What intangible factors might enter into the entrepreneur’s location decision?
6. What are zoning laws? How do they affect the location decision?
7. What is the trade area? What determines a small retailer’s trade area?
8. Why is it important to discover more than just the number of passersby in a traffic count?
9. What types of information can the entrepreneur collect from Census data?
10. Why may a “cheap location” not be the “best location”?
11. What is a foreign trade zone? An empowerment zone? A business incubator? What advantages and disadvantages does each of these offer a small business locating there?
12. Why is it costly for a small firm to choose a location that is too small?
13. What function does a small company’s sign serve? What are the characteristics of an effective business sign?
14. Explain the Americans with Disabilities Act. Which businesses does it affect? What is its purpose?
15. What is ergonomics? Why should entrepreneurs utilize the principles of ergonomics in the design of their facilities?
16. Explain the statement, “Not every portion of a small store’s interior space is of equal value in generating sales revenue.” What areas are most valuable?
17. According to market research firm NPD Group, in 1985, women purchased 70 percent of all men’s clothing; today, women buy just 34 percent of men’s apparel. What implications does this have for modern store layouts?
18. What are some of the key features that are determine a good manufacturing layout?
1. Select a specific type of business you would like to go into one day and use Census data and Commerce Department reports from the World Wide Web or the local library to choose a specific site for the business in the local region. What location factors are critical to the success of this business? Would it be likely to succeed in your hometown?

2. Interview a sample of local small business owners. How did they decide on their particular locations? What are the positive and negative features of their existing locations?

3. Locate the most recent issue of either *Entrepreneur* or *Fortune* describing the “best cities for (small) business.” (For *Entrepreneur*, it is usually the October issue, and for *Fortune*, it is normally an issue in November). Which cities are in the top 10? What factors did the magazine use to select these cities? Pick a city and explain what makes it an attractive destination for locating a business there.

4. Select a manufacturing operation, a wholesale business, or a retail store, and evaluate their layouts using the guidelines presented in this chapter. What changes would you recommend? Why? Does the layout contribute to a more effective operation?

5. Choose one of the businesses you studied in Exercise 4 and design an improved layout for the operation. How expensive would these alterations be?

6. Visit the Web site for the Census Bureau at [http://www.census.gov/](http://www.census.gov/). Go to the Census data for your town and use them to discuss its suitability as a location for the following types of businesses:
   - A new motel with 25 units
   - bookstore
   - An exclusive women’s clothing shop
   - A Mexican restaurant
   - A residential plumber
   - A day-care center
   - A high-quality stereo shop
   - A family hair care center

7. Use the resources on the World Wide Web or the local library to prepare a demographic profile of your hometown or city or of the town or city in which you attend college. Using the demographic profile as an analytical tool, what kinds of businesses do you think would be successful there? Unsuccessful? Explain. Use these same resources to prepare an analysis of the competition in the area.